National Library of Canada
Canadian Theses Service
Ottawa, Canada
K1A 0N4

Bibliothèque nationale du Canada
Service des thèses canadiennes

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

NL-339 (r. 88/04) c

Canada

National Library of Canada
Bibliothèque nationale du Canada

Canadian Theses Service
Service des thèses canadiennes

Ottawa, Canada
K1A 0N4

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-58255-3

Canada

THE UNIVERSITY OF ALBERTA

GENDER AND SCHOOL LEVEL INFLUENCES ON OCCUPATIONAL ASPIRATIONS

by

DOREEN S. LUPASCHUK

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

IN

COUNSELLING PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL, 1989

THE UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: Doreen Susan Lupaschuk

TITLE OF THESIS: Gender and School Level Influences on Occupational Aspirations

DEGREE FOR WHICH THESIS WAS PRESENTED: Master of Education

YEAR THIS DEGREE GRANTED: Fall, 1989

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

(Signed) Doreen Lupaschuk

PERMANENT ADDRESS:

#48 10453 - 20 Avenue

EDMONTON, Alberta

T6J 5A1

Date: August 9, 1989

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "Gender and School Level Influences on Occupational Aspirations" submitted by Doreen S. Lupaschuk in partial fulfillment of the requirements for the degree of Master of Education in Counselling Psychology.

D Lupaschuk
Supervisor

L. J. Severe

A M Deere

Date: August 9, 1989

DEDICATION

In loving memory of my late dear father, Leon Lupaschuk, who always encouraged me to pursue my aspirations and to maximize my potentials.

ABSTRACT

All 160 rural students in grades 4 through 12 who attend Andrew School, County of Lamont, Alberta participated in this study. This study replicated and broadened two studies: (1) Baumgartner Papageorgiou's 1982 study on students' perceptions of gender roles and (2) Labour Canada's 1986 study entitled Career Expectations and Aspirations of Canadian Schoolchildren. The influences of gender and school level (upper elementary, junior high, and senior high) were examined in the following areas: perception of gender roles, traditionality of occupational aspirations, sources of occupational aspirations, attractiveness of selected gender-typed activities, and expectations of the gender composition of selected occupations.

The research instrument employed in this study was comprised of applicable portions of the Labour Canada (1986) questionnaire and the Baumgartner Papageorgiou (1982) question, "If you woke up tomorrow and discovered that you were a (boy/girl), how would your life be different?"

In response to the Baumgartner Papageorgiou question, students' perceptions were often dichotomized on the basis of gender and students perceived the following emergent themes as being gender-related: personal characteristics (appearance, physical, personal attributes, cognitive, and affective), behavior characteristics (general, activities, and interests), social aspects (relationships, differential

treatment, home responsibilities, names, school subjects, and gender value), and occupational factors.

With reference to the replication of the Labour Canada Study, gender significantly influenced students' traditionality of occupational aspirations. There were also significant gender differences found in students' enjoyment of selected gender-typed activities and in students' expectancy of the gender composition of selected occupations. However, gender did not significantly influence students' sources of occupational aspirations.

Educational level was found to exert a differential effect on males' and females' sources of occupations aspirations. Students' enjoyment of selected activities was influenced to a lesser extent by educational level than by gender. Moreover, educational level did not have a significant impact on the traditionality of students' occupational aspirations and it appears unlikely that educational level influences students' gender expectancy of occupations.

Recommendations focus on assisting students to narrow the gender gap in the occupational domain. Furthermore, the recommendations incorporate findings about the impact educational level exerts on the sources of students' occupational aspirations.

ACKNOWLEDGEMENTS

I would like to give special thanks and appreciation to my thesis supervisor, Dr. Carolyn Yewchuk, for her commitment to excellence and for her guidance, support, and encouragement. Her exemplary organizational skills were a definite asset in assisting me to organize and describe the extraordinary amount of data that was involved in this study. Appreciation is also extended to the members of my thesis committee, Dr. R. Jevne and Dr. A. M. Decore who gave willingly of their time and of their expertise in the area of gender role stereotyping.

Furthermore, I wish to acknowledge other individuals who assisted me in completing this thesis. I wish to thank Mr. R. Wiznura, Superintendent of Schools, and the members of the County of Lamont Board of Education for granting me permission to administer the respective questionnaire to the students at Andrew School. I also wish to thank Mr. M. Stewart, Principal at Andrew School, and the teaching staff at Andrew School for their support and cooperation in the implementation of this project.

In addition, I am most grateful for the whole-hearted cooperation and assistance I received from the parents and students of Andrew.

Special appreciation is extended as well to Mr. L. M. Cholak, Vice-Principal at Andrew School, for his many contributions to and support of this project; Mrs. J. Romaniuk, secretary at Andrew School, for her assistance in

securing a 100% return of the parental consent forms; Mr. A. Beaulne, a consultant in DIRS, for his statistical expertise; Ms. M. Sharon, a friend and colleague, for her encouragement and support, and her expertise in the phenomenological research methodology; and to Mr. V. Lopatka, my uncle, for his technical assistance.

Finally, I wish to extend a special acknowledgement and gratitude to my mother, for her continued love and belief in me.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
	A. Introduction to the Problem	1
	B. Purpose of the Study	4
II.	LITERATURE REVIEW	6
	A. Background Information	7
	1. Theories of Gender Typing	7
	a. Psychoanalytic Theory	8
	b. Social Learning Theory	10
	c. Cognitive Developmental Theory	12
	d. Gender Schema Theory	14
	2. Gender Role Socialization	16
	3. Occupational Expectations and Perceptions	20
	B. Review of Research Studies That Directly Relate to the Present Study	22
	1. Gender and Occupational Aspirations	22
	2. Educational Level and Occupational Aspirations	27
	3. Gender and Occupational Expectations	32
	4. Educational Level and Occupational Expectations	36
	5. Baumgartner Papageorgiou's Study on Students' Perceptions of Gender Roles	39
	6. Labour Canada Study on the Career Expectations and Aspirations of Canadian Schoolchildren	45
	a. Traditionality of Children's Occupational Choices	46

b. Sources of Career Choices..... 47

c. Attractiveness of Selected Activities..... 48

d. Expectations of the Gender Composition of Some Occupations..... 49

e. Summary..... 51

C. Questions for Investigation..... 52

1. Students' Perceptions of Gender Roles... 52

2. Traditionality of Occupational Choices..... 53

3. Sources of Occupational Choices..... 53

4. Attractiveness of Selected Activities... 54

5. Future Gender Composition of Selected Occupations..... 54

III. METHODOLOGY..... 55

A. Description of the Research Instrument..... 55

B. Data Collection and Treatment..... 57

C. Description of the Sample..... 60

D. Project Approval and Implementation..... 61

E. Analysis of Data..... 62

1. Quantitative Analysis..... 62

2. Qualitative Analysis..... 63

F. Summary..... 65

IV. RESULTS AND DISCUSSION..... 67

Questions Investigated..... 67

1. Students' Perceptions of Gender Roles... 67

Question 1.1..... 67

Question 1.2..... 80

Question 1.3..... 87

Question 1.4..... 89

2. Traditionality of Occupational Choices..... 90

Question 2.1..... 90

Question 2.2..... 93

Question 2.3..... 95

3. Sources of Occupational Choices..... 96

Question 3.1..... 96

Question 3.2..... 99

Question 3.3..... 102

4. Attractiveness of Selected Activities... 103

Question 4.1..... 103

Question 4.2..... 107

Question 4.3..... 111

5. Future Gender Composition of Selected Occupations..... 112

Question 5.1..... 112

Question 5.2..... 118

Question 5.3..... 121

V. SUMMARY AND CONCLUSIONS..... 123

A. Discussions of Results..... 123

1. Students' Perceptions of Gender Roles... 123

2. Traditionality of Occupational Choices..... 127

a. Gender..... 127

b. Educational Level..... 129

c. Comparison with the Labour Canada Study..... 130

3. Sources of Occupational Choices..... 130

a. Gender..... 130

b. Educational Level..... 131

c. Comparison with the Labour Canada Study..... 132

4. Attractiveness of Selected Activities..... 132

a. Gender..... 132

b. Educational Level..... 133

c. Comparison with the Labour Canada Study..... 133

5. Gender Composition of Selected Occupations..... 134

a. Gender..... 134

b. Educational Level..... 136

c. Comparison with the Labour Canada Study..... 136

B. Summary of Results..... 137

1. Students' Perceptions of Gender Roles... 137

2. Occupational Aspirations and Expectations..... 138

a. Gender..... 138

b. Educational Level..... 141

c. Comparison with the Labour Canada Study..... 142

C. Recommendations for Educators and Parents..... 143

1. For School Counsellors and Teachers..... 144

2. For Parents..... 148

D. Limitations..... 149

E. Recommendations for Future Research..... 151

REFERENCES..... 152

APPENDIX I. Labour Canada Questionnaire..... 160

APPENDIX II. Questionnaire (Form 1 and 2)..... 163

APPENDIX III. Permission to Reproduce Excerpts from the Labour Canada Study..... 170

APPENDIX IV. Letter of Request to Superintendent and Board of Education..... 172

APPENDIX V. Letter of Approval from Superintendent and Board of Education..... 175

APPENDIX VI. Cover Letter to Parents/Guardians..... 177

APPENDIX VII. Parent/Guardian Consent Form 180

APPENDIX VIII. Verbatim Written Statments, Formulated Meaning, and Identification of Themes..... 182

APPENDIX IX. Tabular Summary of Themes Identified From Verbatim Statements Made by Male and Female Students at Each Educational Level..... 229

APPENDIX X. The Percentage of Attractiveness of Gender-stereotyped Activities by Gender for Each Educational Level..... 245

APPENDIX XI. The Percentage of Attractiveness of Gender-stereotyped Activities by Educational Level for Each Gender..... 249

APPENDIX XII. The Percentage of Attractiveness of Gender-stereotyped Activities by Gender for the Elementary Students in This Study and in the Labour Canada Study..... 252

APPENDIX XIII. The Percentage of the Expectancy of the Gender Composition of Occupations by Gender for Each Educational Level..... 255

APPENDIX XIV. The Percentage of the Expectancy of the Gender Composition of Occupations by Educational Level for Each Gender..... 259

APPENDIX XV. The Percentage of the Expectancy of the Gender Composition of Occupations by Gender for Elementary Students in This Study and in the Labour Canada Study..... 262

LIST OF TABLES

Table	Description	Page
1	Distribution of the Subjects by Educational Level and Gender.....	61
2	Tabular Summary of Theme Frequency.....	82
3	Traditionality of Occupational Choices by Gender.....	91
4	Traditionality of Occupational Choices by Educational Level.....	94
5	Sources of Occupational Choices by Gender...	98
6	Sources of Occupational Choices by Educational Level.....	100
7	Enjoyment of Gender-Stereotyped Activites by Gender for Total Sample.....	104
8	Enjoyment of Gender-stereotyped Activities by Gender for Each Educational Level.....	105
9	Enjoyment of Gender-stereotyped Activities by Educational Level for Total Sample.....	108
10	Enjoyment of Gender-stereotyped Activities by Educational Level for Each Gender.....	109
11	Expectancy of the Gender Composition of Occupations by Gender for Total Sample.....	114
12	Expectancy of the Gender Composition of Occupations by Gender for Each Educational Level.....	115
13	Expectancy of the Gender Composition of Occupations by Educational Level.....	119
14	Expectancy of the Gender Composition of Occupations by Educational Level for Each Gender.....	120
15	Summary of Significant Differences.....	139

CHAPTER I

INTRODUCTION

A. Introduction to the Problem

Despite recent federal and provincial legislation which mandates gender equality, stereotypical perceptions of gender roles remain and, therefore, impact significantly upon career expectations and aspirations. Although the barriers to traditional male dominated occupations are very slowly being eradicated and females are making inroads into these once exclusive domains, society still regards these as novel, surprising, and an oddity rather than the norm. For example, Edmonton's first female firefighter gained prominence in the news media: the other twenty-two graduating recruits went unmentioned merely because they were male (Edmonton Journal, September 30, 1988, p. B1). Contemporary society regards such an occurrence as being newsworthy because of the unique status that Shirley Benson has attained. The event emphasizes the continued perceptions of stereotyped occupations in our society: only isolated cases which contradict the status quo and are the exception rather than the ordinary become noteworthy.

Only the initial steps on the long, winding, and perilous road to the elimination of stereotypical perceptions of occupations have been made. Government legislation in and of itself will not achieve this goal: only a concerted effort on the part of family and school over an extended time period will lead to eventual success.

In order for the education system to be in a position to address this concern, there must be an initial acceptance by educators that gender role stereotyping exists, that it has debilitating effects, and that a considered course for remedial action is necessary.

There already exists an extensive knowledge base about gender role stereotyping: the issue has inspired in the last two decades much research and study.

It is seemingly incongruent, however, that students still adhere to traditional career expectations and aspirations given the following factors:

(1) the availability to educators of a plethora of research literature dealing with the issue of gender role stereotyping.

(2) the government mandated curriculum objectives designed to assist students in having an increased awareness "of the changing nature of male/female roles" and "of the concept of stereotyping and its limiting nature" (Alberta Education, 1986, p.197).

One would anticipate that most students would be benefactors of such a thrust.

Although inroads have been made toward the elimination of stereotypical perceptions of gender roles, Baumgartner Papageorgiou (1982) found that the overwhelming majority of students still see traditional gender roles as their only choice. Even the minority of students who reject traditional gender roles are aware that the "redefinition of

sex roles to allow for greater individuality results in increased advantages for both sexes, but primarily for females" (p. 2).

Baumgartner Papageorgiou (p.2) surveyed approximately 2,000 students in 3rd through 12th grade in both large, metropolitan districts and smaller, rural districts in Colorado. She asked students to respond in written form to the following question, "If you woke up tomorrow and discovered that you were a (boy)(girl), how would your life be different" (p.2)?

Baumgartner Papageorgiou analyzed the students' responses to the question posed and identified twelve underlying themes. The twelve themes highlight the damaging and limiting effects of gender role stereotyping.

Another study entitled Career Expectations and Aspirations of Canadian Schoolchildren conducted by Labour Canada (1986) indicates that gender role stereotyping is still pervasive in Canadian society. This study found that elementary boys and girls differed significantly in their responses to items about the attractiveness of activities that involved responsibility, mechanical skills, and advanced education. Although a high percentage of boys and girls believed that, as adults, they would be engaged in many of the same occupations, there were some significant differences between the levels of participation expectancy for men and women in nontraditional occupations. Moreover, girls' belief in the participation of women in

nontraditional occupations was not always reflected in their individual career choices. Children's career choices were found to be most influenced by relatives, other adults who serve as role models, and television programs.

B. Purpose of the Study

The purpose of this study is to

(1) replicate and broaden Baumgartner Papageorgiou's 1982 study on students' perceptions of gender roles

(2) replicate, and broaden to include junior and senior high students, applicable portions of the 1986 Labour Canada Study of Career Expectations and Aspirations of Canadian Schoolchildren, relative to traditionality and sources of occupational sources of occupational choices, attractiveness of selected activities, and expectations of selected occupations.

(3) determine whether gender and educational level (upper elementary, junior high and senior high) relate significantly to

(a) perceptions of gender roles

(b) traditionality of occupational choices

(c) sources of occupational choices

(d) attractiveness of selected activities

(e) expectations of the gender composition of selected occupations

This study is designed to assist both educators and guidance counsellors who are genuinely interested in helping students gain an increased awareness of the limiting nature of gender role stereotyping and who are committed to promoting nonstereotypic knowledge and attitudes about career opportunities. Guidance counsellors should be encouraging students to explore a wide range of occupational possibilities that are commensurate with their interests, abilities, and values rather than allowing students to limit their occupation choices on the basis of gender.

The information acquired from this study about the degree to which gender role stereotyping still exists among our youth, the factors that impact upon students' occupational aspirations and expectations, and the implications for vocational counselling could prove to be enlightening to educators, guidance counsellors, and parents. Armed with this knowledge and understanding, school personnel could become motivated and inspired to implement appropriate career intervention programs.

CHAPTER II

LITERATURE REVIEW

A plethora of literature pertaining to the topic under consideration exists. Therefore, the writer's intention is to focus the literature review on the theoretical perspectives and research which most closely relates to the present study.

Consequently, the writer developed a functional framework for this literature review that will be defined by these parameters:

A. Background Information
   1. Theories of Gender Typing
   2. Gender Role Socialization
   3. Occupational Expectations and Perceptions

B. Review of Research Studies That Directly Relate to the Present Study
   1. Gender and Occupational Aspirations
   2. Educational Level and Occupational Aspirations
   3. Gender and Occupational Expectations
   4. Educational Level and Occupational Expectations
   5. Baumgartner Papageorgiou's Study on Students' Perceptions of Gender Roles
   6. Labour Canada Study on the Career Expectations and Aspirations of Canadian Schoolchildren

C. Questions for Investigation

A. Background Information

1. Theories of Gender Typing

Socialization is a process whereby human beings acquire their personal identities, individuality, aspirations, and ideals (Wolf,1979). Moreover, socialization involves both gender typing and identification. The acquisition of gender-appropriate preferences, personality, behaviors, and self-concept is referred to as the process of "gender typing" (Salamon & Robinson, 1987). The process of "identification" refers to the process of the child patterning his or her thoughts, behaviors, and feelings after the same-sex parent (Meyer & Dusek, 1979).

Three theories have traditionally been influential in explaining the processes of gender typing and identification: psychoanalytic theory, social learning theory, and cognitive-developmental theory. These three are the most influential theoretical constructs in contemporary psychological thought. Recently, the gender schema theory has been introduced as a fourth theory of gender typing (Salamon & Robinson, 1987).

Some support exists for each of these theoretical views, which might together provide a relatively inclusive basis for considering the many factors that influence gender typing and identification (Meyer & Dusek, 1979).

In this section, each theoretical perspective will be briefly explained.

a. Psychoanalytic Theory

Sigmund Freud, father of psychoanalysis, employed a biological approach to explain psychosexual development (Weitz, 1977, Mackie, 1983, Salamon & Robinson, 1987). Freud relied heavily on anatomy to explain the differences between males and females; in other words, "anatomy is destiny" (Salamon & Robinson, 1987). Acceptance of Freud's view of gender-role typing requires belief in the primacy of the unconscious, the central role of sexuality, and the enduring impact of childhood on adult personality (Weitz, 1977). His theory has been instrumental in maintaining belief about the biological bases of gender-role acquisition and the unequivocal acceptance of same-gender parents as the major influence on gender-role identity (Brooks-Gunn & Schempp Matthews, 1979).

The term "identification" was employed by Freud to represent the child's unconscious need to be like the same-gender parent. The child literally takes on the same-gender parent's personality as his or her own. According to Freud, identification is the means through which children conform to societal demands and the motivation for identification is biologically rooted in ownership or nonownership of a penis (Mackie, 1983).

According to Freud, a boy becomes involved in the "Oedipal complex" during the phallic stage (ages 3 - 5) and the resolution of this complex results in the process of identification with the father. In Freud's Oedipal complex

a boy becomes fascinated with his penis and fantasizes about possessing his mother sexually (Brooks-Gunn & Schempp Matthews, 1979; Salamon & Robinson, 1987). He begins to perceive his father as a rival for his mother's attention and fears his father will retaliate by castrating him (Salamon & Robinson, 1987). The foregoing results in "castration anxiety". In order to avoid castration, a boy gives up his mother as a sexual object and identifies with his father (Salamon & Robinson, 1987; & Weitz, 1977). Consequently, this strong identification with the father involves the acquisition of masculine values and qualities and signifies the onset of the boy's acquisition of the masculine sex role (Brooks-Gunn & Schempp Matthews, 1979). On the other hand, Freud felt that girls experience the "Electra complex" during the phallic stage (ages 3 - 5). A girl's discovery of not possessing a penis results in her holding her mother accountable for the castration and in her desiring to possess a penis by becoming impregnated by her father (Salamon & Robinson, 1987; Brooks-Gunn & Schempp Matthews, 1979) . A girl's original identification with the mother becomes solidified when she realizes how futile her desire for her father is and when she fears losing her mother's affection (Weitz, 1977).

Freud believed that the resolution of the Electra complex among girls was inferior to the resolution of the Oedipal complex among boys. Furthermore, he believed that the unsuccessful resolution of the Electra complex leads to

lifelong feelings of inferiority for females and the development of a less mature conscience or superego (Salamon & Robinson, 1987). Freud considered the castration anxiety that results during boys' resolution of the Oedipal complex as essential for the development of a normal personality and normal gender-role identity (Brooks-Gunn & Schempp Matthews, 1979). In other words, Freud thought women were morally inferior to men (Brooks-Gunn & Schempp Matthews, 1979).

b. Social Learning Theory

In contrast to the psychoanalytic model of gender typing, the social learning model does not employ the concept of identification in holistic terms; it attempts to explain the learning of discrete behaviors (Weitz, 1977). Social learning theorists believe that identification refers to the tendency of the child to behave like someone else, a result of imitating someone who is powerful or who is similar to the child (Meyer & Dusek, 1979). Learning theorists view gender learning as occurring gradually, with individual behaviors being reinforced. They contend that a child learns appropriate gender behavior through the influence of a wide variety of models. Moreover, incentives for learning come from external sources rather than from internal sources (Mackie, 1983). Social learning theory emphasizes the following three processes that are involved in the acquisition of gender roles: direct reinforcement,

imitation, and observational learning (Salamon & Robinson, 1987).

By means of rewards and punishments, socializing agents (parents and significant others) can either encourage or discourage particular behaviors in children. The principle of operant conditioning is employed to explain gender typing (Meyer & Dusek, 1979 & Mackie, 1983). Parents along with other socializing agents, therefore, "shape" children's behavior by directly rewarding children for gender appropriate behavior and punishing children for gender inappropriate behavior (Salamon & Robinson, 1987; Brooks-Gunn & Schempp Matthews, 1979; & Weitz, 1977).

According to social learning theorists, most of a child's learning comes from actively imitating or modeling the behavior of others, particularly parents (Brooks-Gunn & Schempp Matthews, 1979). Albert Bandura contends that observational learning is the basis of identification and the learning of most social behavior. By means of observational learning, children incorporate behavior into their repertoire and replicate these behaviors at a later developmental stage (Salamon & Robinson, 1987).

The research conducted by Bandura suggests that "children do imitate, and imitate differentially, depending on the perceived consequences of their behavior" (Salamon & Robinson, 1987, 21). By a child reasoning that he or she is rewarded for imitating gender-appropriate behavior, the child comes to adopt a gender-role identity that will serve

as a guide for the further acquisition of gender-appropriate behavior. A child acquires a gender role by first observing, then by selectively attending to those who share the same "feminine" or "masculine" qualities as they do, and finally by imitating what they observed with the intent of maximizing their rewards (Brooks-Gunn & Schempp Matthews, 1979). Children acquire the subtle aspects of gender roles by imitating the same-gender parent and same-gender adults more than other-gender parents and adults (Salamon & Robinson, 1987).

Bandura, a major contributor to social learning theory, maintains that the mechanisms of observational learning and imitation are largely responsible for a child's acquisition of gender identification and gender-typing (Meyer & Dusek, 1979).

c. Cognitive Developmental Theory

Lawrence Kohlberg developed a theory of gender role development that is based upon Piaget's stages of cognitive development (Weitz, 1977, Mackie, 1983, Salamon & Robinson, 1987 & Brooks-Gunn & Schempp Matthews, 1979) Kohlberg proposed that the concepts of "gender constancy" - the knowledge that gender is a permanent part of one's identity - and "gender identity" undergo developmental changes (Salamon & Robinson, 1987). According to Kohlberg, a child's understanding of gender constancy is limited by his

or her cognitive ability to understand and organize the world (Weitz, 1977, & Salamon & Robinson, 1987).

The central assumption of Kohlberg and Piaget's theories of development is that a child actively seeks to make sense of the world around him or her. Cognitive theorists believe that a child's developing intellect is the basis for identification and that gender role learning is primarily self-motivating (Meyer & Dusek, 1979, Salamon & Robinson, 1987).

According to Kolberg, children first acquire a gender identity by becoming cognizant of the fact that the world can be divided into two genders and that they belong to one and only one gender (Brooks-Gunn & Schempp Matthews, 1979). Kohlberg's theory of gender role development centers around a "motivating cognitive judgment made early in the child's life that leads to identifications and the performance of sex-appropriate behaviors" (Weitz, 1977, p. 79). A child cognitively categorizes himself or herself as being male or female and this insight serves to organize subsequent development of gender-appropriate behavior. This process of gender categorization or gender identity begins around age four and is completed by age six or seven (Weitz, 1977). Once a child is cognizant of his or her gender, the child employs the category of gender in a rigorous manner to help categorize the world around him or her. Kohlberg believes that gender identity (self-categorization as a boy or a

girl) is the basic organizer of attitudes toward gender roles (Meyer & Dusek, 1979).

The acquisition of a gender identity is followed by the attachment of value to people, behaviors, and attitudes of the same gender (Brooks-Gunn & Schempp Matthews). A child becomes internally motivated to seek out same-gender people to imitate, same-gender objects to play with, and same-gender activities to engage (Weitz, 1977, Brooks-Gunn & Schempp Matthews, 1979). Henceforth, a child identifies with the same-gender parent and imitates the actions and behaviors of that parent.

d. Gender Schema Theory

According to Salamon and Robinson (1987) gender schema theory explains how individuals process information and regulate their behavior according to their culture's definition of femaleness and maleness. The gender schema theory contains features of the social learning and cognitive developmental theories on the acquisition of gender roles.

The gender schema theory proposes that gender typing originates from gender schematic processing, "from a generalized readiness on the part of the child to encode and to organize information - including information about the self - according to the culture's definitions of maleness and femaleness" (Salamon & Robinson, 1987, p.151). Children learn to encode and to organize information in terms of an

evolving gender schema. Salamon & Robinson (1987) define a schema as a cognitive structure that organizes and guides an individual's perceptions. According to Bem, people perceive many things as gender-related and often dichotomize things on the basis of gender (Salamon & Robinson, 1987). For example, many people perceive the role of surgeon as being masculine and the role of nurse as being feminine.

Bem also proposed that gender schema is closely allied with self-concept; therefore, a child's self-concept becomes gender typed (Salamon & Robinson, 1987). The gender schema theory proposes that gender typing results, in part, from the assimilation of the self-concept itself to the gender schema. While children learn the contents of their society's gender schema, they also learn which dimensions of human personality are associated with their own gender and, hence, themselves. Society's gender schema becomes a prescriptive guide and self-esteem is held hostage by it (Salamon & Robinson, 1987).

A review of these four theoretical perspectives of gender typing provides a theoretical framework from which to understand the process of socialization. In the next section, the gender role socialization provided by the major agents of socialization - parents, the media, and the educational system - will be examined.

2. Gender Role Socialization

Gender role socialization "is the process through which individuals acquire gender identity as well as ways of acting, feeling, and thinking that are appropriate to the gender expectations of their society" (Salamon & Robinson, 1987). The learning and internalization of "appropriate" behavior patterns, aspirations, values, and feelings is accomplished very early in a child's life (Wolf, 1979; Scheresky, 1977). From the moment the attending physician or nurse inform the parents that "It's a boy" or "It's a girl" parents begin to think and behave differently toward their newborn infant. Moreover, from birth children begin to acquire a gender identity and to acquire knowledge of behavior and traits assumed by their respective culture to be associated with the roles of being male or female. By the time children are three or four, most of them have gained a gender identity and begin to display behaviors that are consistent with the respective male and female roles defined by their society (Baron & Byrne, 1984). Maccoby & Jacklin's literature review (cited in Getty & Cann, 1981) suggests that children develop highly gender-typed activity preferences and behaviors as early as age three.

An infant is exposed to, and influenced by a myriad of behaviors and attitudes from parents and significant others that portray many gender-role stereotypes (Wanga, 1981). Richards (1979, p.1) explains that gender "stereotyping is a subtle and powerful lifelong force". According to

Schlossberg and Goodman (1972), males and females are perceived differently from birth, often in a way suggesting inferiority for females.

Different rearing practices occur based on the gender of the child: the handling of infants, the clothing of pink versus blue, the number and kinds of toys during toddlerhood, and the encouragement of dependence or independence differs based on gender (Schlossberg and Goodman, 1972; Wanga, 1981). Parents often select toys for girls and boys to play with that appear to be designed to reinforce the gender role limitation and stereotypes. While boys are given trucks, blocks, footballs, and doctors' kits; girls are given household work items, dolls, toy furniture, and nurses' kits (Schlossberg and Goodman, 1972; Richards, 1979; Wolf, 1979; Wanga, 1981). The differential provision of toys on the basis of gender might teach children what occupations they should aspire toward (O'Keefe & Hyde, 1983).

The aforementioned differential rearing practices teach and reward boys to be strong, independent, aggressive and competitive while girls are taught and rewarded for being passive, dependent, nurturant and obedient (Wolf, 1979). Moreover, young boys are taught to develop competence and skills to gain mastery of their environment while young girls are taught to gain mastery of their environment by depending on others through affiliation. Differential child-rearing practices result in males developing stronger

autonomous achievement motivation, and females becoming more receptive to external cues on standards for appropriate achievement-directed behavior. Since females are highly motivated by a need for affiliation, they become highly sensitive and vulnerable to social feedback (DiSabatino, 1976).

In addition to differential child-rearing practices, other contingencies exist within the early childhood environment that prompt and reinforce the development of gender-role stereotypes. These include parental identification and prompting, peer group influence, gender-role bias found in the reading materials, gender-role bias portrayed in the media, and the preferential treatment of girls and boys by the education system (Wanga, 1981).

Children's play activities also reinforce the gender-role stereotype. Girls play mostly indoors and within close vicinity of adult supervision and protection whereas boys play out on the streets and in a less structured environment. Participation in these respective types of activities encourages and maintains compliant behavior in girls and novel and investigative behavior in boys (Wanga, 1981).

Children's reading materials often portray gender-stereotyped behaviors and activities. Many of the characters in the books are portrayed in traditional male or female roles. For example, women and girls work in the house while the men and boys work in the fields. Males are

portrayed fulfilling very protective roles, while females are portrayed doing service jobs (Wanga, 1981).

The media, especially television, is one of the leading reinforcers of gender-role stereotypes in children (Wanga, 1981, McGregor, 1984). Mastronardi (1986), in her review of females in television advertisements, indicates that television has established beyond a reasonable doubt that gender-stereotyping still exists. She explains that a child spends more time watching television than being with his or her working parents or being in the classroom.

Since a large portion of a children's lives are spent in the classroom, the messages transmitted to children in school also impact upon children's perception of gender roles (Jacobs & Eaton, 1972). The education system is a major agent for either strengthening the traditional gender role differentiation or changing it. Moreover, teachers are a product of the society and are frequently not aware of the effect their notions might have. According to Shields (1983), research has proven that most adults interact differently with boys than with girls due to dissimilar expectations.

The major agents of socialization collectively perpetuate and reinforce gender-typed roles in our society. The differential role socialization of boys and girls has clear adult ramifications, particularly in males' and females' expectations and perceptions of "appropriate" occupational roles. In the next section, the differential

occupational role expectations and perceptions held by males and females will be considered.

3. Occupational Expectations and Perceptions

Gender-related differences in occupational aspirations have been attributed to the effect of early socialization on normative gender-role expectations (Danziger, 1983). Once a child begins to recognize the difference between his mother and father, he or she is in constant observation of the different roles each parent has. By the end of two years, a child associates the mother with nursing and domestic work and the father with work outside the home. As the child matures, he or she begins to generalize the mother's role to all other women and the father's role to all other men (Wanga, 1981).

The child learns that men are expected to be economically independent and to provide income to support the family while women take the major responsibility for home management and child care (Danziger, 1983; Marini, 1978). From the time she is a very young girl, traditionally socialized females are socialized to receive their total gratification through the roles of wife and mother, and that these domestic roles should take precedence over all other roles including occupational ones (Block, Denker, & Tittle, 1981; Aneshensel & Rosen, 1980 & Wolf 1979). Women might limit their occupational choices because they perceive that their participation in the labour force

will be only temporary whereas men are more likely to realistically prepare for the future (Wynn, 1987). For women, the pursuit of a career and economic independence are perceived as optional and often secondary to marriage and motherhood (Danziger, 1983; Aneshensel & Rosen, 1980). In contrast to girls, boys are taught from an early age that the will be expected to obtain a job and to support themselves and their families (Wynn, 1987). Men are socialized to become fulfilled through both family and occupational roles (Block, Denker, & Title, 1981).

According to Marini (1978, p.727), "changes in conceptions of the female role has led primarily to the necessity for choice with respect to employment outside the home, a choice based on the decision of whether to add a new role to the traditional homemaker role rather than whether to substitute a new role for the old one." Women are still not expected to achieve and they tend to defer responsibility for supporting a family to their husbands. Women tend to view their own occupational aspirations as being supplementary and less important than their husbands' occupations, which represent a full-time commitment and provide the principal source of income for the family (Danziger, 1983; & Marini, 1978).

Many women perceive that high prestige, high salary, or competitive occupations will jeopardize their opportunity to marry or will interfere with their family life; therefore, they choose occupations that are more compatible with

marriage and family (Aneshensel & Rosen, 1980; Danziger, 1983). Typically these occupations are middle-status, low pay, traditional "female" occupations (Aneshensel & Rosen, 1980). Tully, Stephen, and Chance (1976) studied sixth, seventh, and eighth graders and found that girls aspired to lower paying and less prestigious occupations than boys. Tully, Stephen, and Chance felt that this difference was probably related to the adolescent girl's perceived option to marry and not to pursue an occupation. A woman's selection of an occupation is often restricted by her decisions about marriage, children, and homemaking responsibilities whereas a man's choice of an occupation is based upon his individual interests (Block, Denker, & Tittle, 1981; Aneshensel & Rosen, 1980).

B. Review of Research Studies That Directly Relate to the Present Study

The terms "occupational aspirations" and "occupational expectations" are used throughout this literature review and, therefore, are worthy of clarification. Occupational aspirations refer to what the students want to be whereas occupational expectations refer to what they expect to be.

1. Gender and Occupational Aspirations

Gender-role stereotyping significantly impacts the occupational choices of students (Wynn, 1987; Adams, and Hickens, 1984). Most research about the occupational

aspirations of schoolchildren has found that children state occupational aspirations that adhere to traditional gender role stereotypes (Gregg & Dobson, 1980; Looft, 1971a, 1971b; Beuf, 1974; O'Connor, 1980; Canale & Dunlap, 1987; Richards, 1979). Furthermore, research has demonstrated that gender plays the most important role in influencing the occupational aspirations of schoolchildren (Canale & Dunlap, 1987; O'Connor, 1980; Garrison, 1979). From a very early age children are socialized by society and their parents, in particular, to have certain expectations about the relationship between gender and occupation (Wanga, 1981). Moreover, the impact of occupational gender role stereotyping is reported to be of greater consequence for females than for males (Gregg & Dobson, 1980). The pervasive nature of gender stereotyping of occupations restricts the occupational choices of young females.

Previous research on gender differences in occupational aspirations has suggested that females choose a narrower range of occupations than do males and that they aspire to traditionally female occupations (Kendel & Gage, 1983; Marine & Greenberger, 1978; Looft, 1971a, 1971b; Sinclair, Crouch, & Miller, 1977; Schlossberg & Goodman, 1972; Hewitt, 1975; Siegel, 1973; Tremaine, Schau, & Busch, 1982; Beuf, 1974; Franken, 1983). Research has found that girls tend to concentrate their occupational aspirations on occupations that are person-oriented and are deemed appropriate for females (Kendel & Gage, 1983; Marini & Greenberger, 1978;

Weller, Shlomi, & Zimont, 1976; Tibbetts, 1975; Vincenzi, 1977; Iglitzin, 1972; Beuf, 1974; Siegel, 1973). Girls tend to cluster their occupational choices to a large extent around the following occupations: nurse, teacher, secretary, and social worker (Looft, 1971a & 1971b; Hewitt, 1975; Kirchner & Vondracek, 1973; Schlossberg & Goodman, 1972; Siegel, 1973; Kriedberg, Butcher, & White, 1978; Tremaine & Schau, 1979; Sinclair, Crouch & Miller, 1977; Ehrhardt, Ince, & Myer-Bahlburg, 1981). Research indicates that boys select occupations that were wider-ranging, primarily adventurous, and traditionally male such as policeman, scientist, or professional athlete (Garrett, Ein, & Tremaine, 1977; Beuf, 1974; Looft 1971b; Tremaine, Schau, & Busch, 1982; Siegel 1973).

Looft (1971a, 1971b) published two investigations in the area of gender-role development demonstrating significant gender differences in the occupational aspirations of male and female first- and second graders. In his first study Looft (1971a) examined occupational role choice among second grade females and found that these girls uniformly nominated traditional occupations which are socially identified with the gender of the student. Looft attributed the narrowness in the variety of occupations nominated by the girls to the influence of social restrictions on the appropriateness of certain occupations for females, and to the sensitivity of these girls to those restrictions.

In his second investigation, Looft (1971b) examined the gender differences in occupational aspirations among first- and second-grade males and females. Looft found that boys, who perceive a wider choice range than girls, nominated a greater variety of different occupations. Looft concluded that children, particularly females, recognize traditional gender-role expectations in regard to occupational roles, and reflect the recognition in the type and number of occupations that they nominate. Gender differences in the range of occupational aspirations seem to develop early in childhood with boys nominating a greater range of occupations than girls.

More recent studies have either found that boys and girls did not differ significantly in the number of occupations in which they expressed an interest or that girls showed greater latitude in occupational interests than boys. This provides some evidence that a lessening in gender typing of occupational aspirations might be occurring. Kriedberg, Butcher, and White (1978) replicated the two investigations reported by Looft (1971a, 1971b) and extended the study to include a sixth-grade comparison group. In contrast to Looft's finding, these researchers did not find significant differences among second- and sixth-grade male and female students in the number of different occupations nominated. Franken's (1983) study of children's gender role expectations in preschool, second grade and fifth grade also did not reveal greater

differences in the number of occupations named by boys and girls at any of the age levels. Garrison (1979) found that there was a broadening of female's occupational aspirations in his examination of the occupational aspirations of three cohorts of twelfth grade students in 1970, 1973, and 1976. Gregg and Dobson (1980) reported that elementary girls stated more occupational interests than their male peers.

Although research has demonstrated that female students tend to restrict their occupational aspirations to traditional occupations, some studies have found that female students are more likely to nominate nontraditional occupations than their male peers. Kriedberg, Butcher, and White (1978) found that half of the sixth grade females nominated nontraditional occupations; thereby resulting in significant differences between the type of occupational roles selected by grades six males and females. At the high school level, Richards (1979) found that more females than males selected nontraditional roles. This latter finding is consistent with Nummenmaa, Nummenmaa and Vanhalakka-Ruoho's (1987) observation that gender-atypical occupational aspirations can be found among Finnish females in their 9th and 12th year of education; however, gender-atypical occupational aspirations were found to be rare among the Finnish males at the respective education levels.

Summary

In summary, a review of the literature reveals the following findings about the impact of gender on schoolchildren's occupational aspirations:

1) Most of the studies reviewed indicated that children state occupational aspirations that adhere to traditional gender role stereotypes. Moreover, gender appears to be the most important factor in influencing the occupational aspirations of schoolchildren.

2) Older studies reported gender differences in the type and number of occupational aspirations. Girls, in contrast to boys, were found to be more restrictive in their occupational choices and to select occupations that are traditionally female.

3) More recent studies provide evidence that suggests that inroads are being made in eradicating the gender differences in the number of occupations nominated by schoolchildren.

4) Female students are reported to be more likely to nominate nontraditional occupations than their male peers.

2. Educational Level and Occupational Aspirations

Gender differences in occupational aspirations and preferences appear very early in childhood (Wanga, 1987,; Tibbetts, 1975; Beuf, 1974; Vondracek & Kirchner, 1974; Looft, 1971). Papalia and Tennent (1975) found that both

boys and girls as early as 3 years 8 months of age chose stereotyped occupations. The degree of flexibility or rigidity of these early attitudes contributes to later occupational information seeking and choice (Tremaine, Schau, & Busch, 1982).

As girls grow older, they seem to develop more liberal attitudes about appropriate occupations for females and apply these to themselves when selecting an occupation. A number of research studies tend to support this generalization. In her investigation of preschool, second- and fifth-grade, Franken (1983) found that, with increasing age, both boys and girls perceived their occupational choices as broadening. In a study of third and sixth graders, Hageman and Gladding (1983) found that sixth-grade girls choose nontraditional occupations more often than third-grade girls; however, the majority of the girls still resigned themselves to having traditionally female or neutral occupations. Ehrhardt, Ince and Myer-Bahlburg (1981) examined the anticipated occupational choices of young girls aged 8 1/2 to 13 and found that girls with nontraditional occupational aspirations were significantly older than girls who aspired to traditionally female occupations. Umstot (1980) found that the occupational choices of seventh-grade females showed a wide range of possibilities compared to the third and fifth grade females.

Kriedberg, Butcher, and White (1978) in examining the occupational role choice among second- and sixth-grade

children found that second-grade females overwhelmingly nominated traditional occupations whereas half of the sixth-grade females nominated nontraditional occupations. Kriedberg, Butcher, and White explain the observed difference in response between second- and sixth-grade females by drawing upon the cognitive-developmental perspective:

> The greater nomination of traditional vocations by young children may be indicative of the less flexible classification hierarchies, particularly as that age group relates to distinctions between the sexes. Older female subjects, possessing more flexible classification systems - particularly in terms of what is masculine and what is feminine - perceive and articulate a wider range of vocational possibilities than their younger cohorts (p.181).

A review of the research by Marini (1978) on the gender differences in the determination of adolescent aspirations indicates that the level of girls' occupational choices appears to decline during the high school years and the level of boys' choices to increase. Moreover, during high school, shifts in occupational choice produce greater differentiation with regard to gender; boys tend to choose more male-dominated occupations while girls tend to choose more female-dominated occupations. This finding is consistent with Canale and Dunlap's (1987) finding that nontraditional occupational aspirations for females rise consistently in the elementary grades and peaks with eighth graders, only to be followed by a regression to more traditional aspirations. The results suggest that during

their high school years girls might become more traditional in their thinking about occupational choices than when they were in junior high or elementary school.

The aforementioned studies identify late childhood and early adolescence as the period of most liberality in occupational aspirations, but conflict with the finding supplied by Teglasi (1981). He found that the occupational choices among kindergarten through grade six students became more gender-typed as the students grew older.

Although the older children in Garrett, Ein, and Tremaine's (1977) study had been exposed to more cultural gender-stereotyping information about occupations and should "know" the stereotypes more accurately, they exhibited less stereotyping than younger children. Based upon the findings of Piaget and Inhelder; Garrett, Ein and Tremaine (1977) claim that older children are at a cognitively more sophisticated level of classification competency than younger children; therefore, the extreme scores of the young children on the gender-typing occupational instrument reflected actual cognitive classification. In conjunction with social learning theory, these findings support cognitive development theory of gender-role typing that emphasizes changes in cognitive structures and processes.

Ehrhardt, Ince, and Meyer-Bahlburg (1981) suggested that social learning may be important in explaining the more liberal attitudes they discovered among the older girls in their sample of girls aged 8 1/2 to 13. Young children are

influenced by their parents, peers, and the media and show conservative gender role stereotyping of occupations whereas adolescent girls entering the "search for identity" years might have an active interest in alternative social roles. Furthermore, adolescent girls have been exposed to many years of school during which they have probably became aware of the wide variety of occupations and have participated in discussions of women's rights.

Summary

In summary, a review of the literature reveals the following findings on the impact of educational level or age on schoolchildren's occupational aspirations:

1) Many studies found that, with increasing age, schoolchildren become more liberal in their occupational aspirations.

2) However, one study conducted by Teglasi (1981) found that elementary schoolchildren become less liberal, with increasing age, in their occupational aspirations.

3) With increasing age, girls, in particular, were found to be more liberal in their attitudes toward occupational aspirations.

4) Girls' liberality toward their occupational aspirations was reported to rise consistently during the elementary grades and peak during junior high. Furthermore, this peak in liberality has been found to be followed by a regression during the high school years.

5) Theories have been developed to explain the liberality found among students in late childhood and late adolescence.

3. Gender and Occupational Expectations

Similar to occupational aspirations, children often indicate stereotyped attitudes in their view of whether males or females should perform certain occupational roles (Gregg and Dobson, 1980). Occupations have traditionally been associated with gender roles. Most occupations could easily be categorized into masculine and feminine categories. Imagined characteristics of each gender (men are stronger and more intelligent while women are more nurturant and gentler) have categorized people in occupations according to gender (Barnhart, 1983).

A review of research suggests that there is pronounced gender typing of occupations and that most schoolchildren "know" which jobs are "feminine", "masculine", or can be filled by either gender (Kendel & Gage, 1983; Schlossberg & Goodman, 1972). Researchers have found that both boys and girls perceive most occupations as being the role of one gender or the other according to traditional stereotyping (Schlossberg & Goodman, 1972; Tibbetz, 1975; Barnhart, 1983). Children learn quite early what occupational role society expects of men and women; in fact, Rosenthal and Chapman (cited in Shepelak, Ogden, & Tobin-Bennett, 1984) have demonstrated that very young children employ linguistic

marks such as "lady doctor" or "male nurse" to denote that it is a deviation from the status quo.

Shepelak, Ogden, and Tobin-Bennett (1984) asked third-, fifth-grade, high school, and college students to evaluate whether a gender-labeled occupation was a position for males, females, or both genders. They discovered that males were restricted from engaging in female-labeled occupations and females were restricted from engaging in male-labeled occupations. This occupational restriction on the basis of gender is confirmed by Aneshensel and Rosen (1980). They found that adolescent females perceive the genders in stereotyped ways and believe that men and women should occupy different occupational roles.

An interesting and more complex pattern emerges in the literature about the differential exclusion of the males and females from gender-typed occupations. Schlossberg and Goodman (1972) as well as other researchers (Franken, 1983; Garrett, Ein & Tremaine, 1977) conducted investigations among elementary children and discovered that they are more likely to exclude females from male occupations than to exclude males from female occupations. In Franken's (1983) study of preschool, second-, and fifth-grade students, girls and especially boys were more likely to exclude women than men from occupations. Hageman and Gladding (1982) report similar findings: sixth grade males, in contrast to sixth grade females, did not agree that females should work in certain occupations. Garrett, Ein, and Tremaine (1977)

reported that first-, third-, and fifth-grade children rated few occupations as being for women and many as being for men; however, neither gender emerged as more flexible in terms of overall gender-typing of occupational roles. Schlossberg and Goodman (1972) found that when the kindergartners and sixth graders in their study did not actually exclude females from an occupation, they thought females would require special training beyond what males would need to gain access to that same occupation. These same subjects felt that a woman's place was limited to certain occupations.

Moreover, the Gregg and Dobson's (1980) study of first and sixth graders provides some evidence that gender stereotyping of occupations by elementary children might be on the decline. Gregg and Dobson reported that these children accepted both men and women working in a variety of occupations. Moreover, they found no significant differences between boys and girls in assigning occupational roles to either men or women: all groups demonstrated liberal attitudes toward the majority of occupations presented.

Studies indicate that females are more liberal than males in their tendency to view different occupations as open to both males and females (Shepard & Hess, 1975; Iglitzin, 1972). Iglitzin (1972) reported that when fifth-grade students were asked who should perform different occupations, stereotyping was common for both boys and

girls; however, girls were more liberal than boys in being willing to view occupations as open to both genders. Furthermore, in Shepard and Hess's (1975) study of kindergartners, eighth graders, college students, and adults' attitudes toward gender role division in adult occupations and activities, females at each age group except kindergarten were significantly more liberal than their male peers.

Shepelak, Ogden, and Tobin-Bennett (1984) found that students in evaluating whether an occupation was suitable for females and males based their conception of gender appropriateness on the perceived gender composition of given social positions. For example, an occupation which is perceived as being exclusively comprised of females becomes classified as being a proper occupation for females and an inappropriate one for males. Similarly, females are barred from male-labeled occupations. According to Teglasi (1981) gender stereotyping of occupations is intimately tied to the actual base rates of men and women engaged in those occupations.

Summary

In summary, a review of the literature reveals the following findings on the impact of gender on schoolchildren's occupational expectations:

1) Much of the research reviewed suggests that schoolchildren perceive most occupations as being the role of one of the genders.

2) In general, both boys and girls were found to restrict males from engaging in traditionally female occupations and restrict females from engaging in traditionally male occupations.

3) However, one study conducted by Gregg and Dobson (1980) indicated that both boys and girls did not differentiate occupational expectations on the basis of gender.

4) Numerous studies conducted among elementary children discovered that elementary children are more likely to exclude females from male occupations than to exclude males from female occupations.

5) Moreover, the studies conducted among elementary children discovered that girls and especially boys were more likely to exclude women than men from occupations.

6) Girls were identified as being more liberal in their occupational expectations than boys.

7) Schoolchildren's occupational expectations were reported to reflect the actual base rate of men and women currently engaged in those occupations.

4. Educational Level and Occupational Expectations

Most research has demonstrated that older children are more prone to refrain from using traditional gender

stereotyping of occupations than are younger ones. Moreover, there has been evidence that suggests that some liberalization of occupational stereotyping (about what occupations men and women do) is occurring. Several studies conducted with elementary and secondary students have found, with increasing age, students develop more liberal attitudes about the appropriate occupations for men and women (Garrett, Ein, & Tremaine, 1977; Shepard & Hess, 1975; Umstot, 1980; O'Keefe & Hyde, 1982).

Shepard and Hess (1975) found that liberality (expressed belief that both males and females should perform an occupation) increased from kindergarten through eighth grade to college and then decreased among adults. O'Keefe and Hyde (1982) also found that liberality of occupational stereotyping increased with educational level. They found third graders and sixth graders to be more liberal than nursery school and kindergarten children. Garrett, Ein, and Tremaine (1977) found increasing flexibility of occupation stereotyping from early to late elementary school. This trend was found primarily for occupations that the children attributed to men and both men and women, not those attributed to women. Umstot's (1980) assessment of the liberality of attitudes of third-, fifth, and seventh-grade females toward gender-role division in adult occupations and activities suggests that inroads are being made in liberalization of occupational stereotyping; however, rigidity persists in some areas. She discovered that

attitudes became more liberal with increasing grade level for some of the survey items, while others remained stable across grades.

However, studies conducted by Gettys and Cann (1981) and Hageman and Gladding (1983) report findings that conflict with the evidence that suggested liberalization of occupational stereotyping occurs with increasing age. Gettys and Cann found that children at each age level (2 1/2 to 8 years of age) made significant distinctions between the "male" and "female" occupations, with the extent of the distinction increasing with age. These findings concur with those of Hageman and Gladding (1983). Hageman and Gladding found that there was a greater willingness of third-grade boys than sixth grade boys to accept both men and women in more occupations.

Scheresky, however, found that occupational stereotyping exists among elementary students and that educational level does not influence the liberality of occupational stereotyping. Scheresky (1977) found that the degree of gender typing of occupational roles was high among each of the age levels he investigated; however, no significant difference was found from the first grade to the third grade to the fifth grade. Scheresky's suggested that the number of years children spend in school did not lessen the degree of occupational stereotyping.

Summary

In summary, a review of the literature reveals the following findings on the impact of educational level or age on schoolchildren's occupational expectations:

1) Many researchers agree that with increasing age, students develop more liberal occupational expectations.

2) However, some researchers report that students, with increasing age, become less liberal in their occupational expectations.

3) One study conducted by Scheresky (1977) suggests that educational level does not exert any influence upon the liberality of students' occupational expectations.

5. Baumgartner Papageorgiou's Study on Students' Perceptions of Gender Roles

Baumgartner Papageorgiou (1982) surveyed 2,000 students in third to twelfth grade and asked them to respond to the following question: "If you woke up and discovered that you were a (boy)(girl), how would your life be different?" (p.2). She analyzed the students' responses to the question and identified the emergence of twelve underlying themes. The following themes identified by Baumgartner Papageorgiou highlight the damaging and restricting effects gender role stereotyping can create.

Effect #1 "Females learn that it is best not to work outside the home, but if one does, one should choose from a

limited number of career options" (p.2). Students frequently identified occupational choice as a difference between being male or female. It is evident from their comments that they were socialized to believe that males are the primary caretakers and that females are to be homemakers and dependent on their husbands.

> "If I were a girl, I would be expected by some to get married rather than pursue a career" (p.2). (10th grade boy)

Effect #2 - "Females are taught to select careers which are less rewarding than those which males are taught to select" (p.3). Students who identified a career choice conformed strictly to the traditional occupational stereotypes for males and females. The occupational aspirations identified by the girls if they were male included: "mechanic, construction worker, pilot, engineer, race car driver, forest ranger, dentist, steelworker, architect, stunt man, coal miner, geologist, farmer, sports commentator, draftsman, and banker" (p.3). Professional athlete was the occupation most frequently listed. The occupational aspirations listed by the boys if they were female included: "cocktail waitress, social worker, teacher, stewardess, interior decorator, child care assistant, receptionist, model, beauty queen, and prostitute" (p.3). Secretary, housewife and nurse were the occupations most frequently listed. The only occupations perceived as possible choices for both sexes were "truck driver, computer

programmer, doctor, and lawyer" (p.3). The list of occupations perceived to be appropriate for both sexes suggests a preference for traditionally male occupations. Girls felt they would have more or different occupational options available to them if they were male.

> "I want to be a nurse, but if I were male, I would probably want to be an architect" (p.3). (4th grade girl)

Effect #3 - "Females are taught that their most valuable asset is their appearance" (p.5). Boys and girls both felt it was imperative that females do all they can do be physically attractive. Furthermore, both boys and girls recognized that a male's physical appearance is relatively unimportant.

> "I wouldn't be a slob anymore. I'd have to smell pretty" (p.5). (8th grade boy)

Effect #4 - "Males are taught that females are to be treated as sex objects; females are taught that such treatment is normal" (p.5). Boys and girls both referred to the fact that females are often treated as sex objects.

> "I would use a lot of make-up and look good and beautiful to everyone, knowing that few people care for my personality, and the majority of people would like to have me just like a sexual object" (p.5). (12th grade boy)

Effect #5 - "Males are taught to be independent, competitive, aggressive, and to use violence" (p.6). Girls described how their behavior would change if they became boys by indicating that they would have to be "rowdy", "smart-alecky", "noisy", and "say disgusting things" (p.6).

> "If I acted [as a boy] like I do now, I wouldn't be accepted. I'd probably need to start cussing and do other things like that to fit in" (p.6). (11th grade girl)

Effect #6 - "Females are taught to be dependent, compliant, and fearful" (p.7). Generally, boys expressed the stereotypic expectation that girls are not to be as active as boys and that girls should be "more quiet and reserved" (p.7).

> "I couldn't climb trees or jump the creek" (p.7). (boy)

Effect #7 - "Males are taught to expect freedom: females are taught to expect restrictions" (p.8). Girls associated being male with having a wider range of freedom whereas boys associated being female with being restricted.

> "There would be fewer rules" (p.8). (girl)
>
> "I couldn't go out as much" (p.8). (boy)

Effect #8 - "Males and females are taught that home and childcare responsibilities are not to be shared equally"

(p.8). Childcare was perceived by both boys and girls as being the female's responsibility. Moreover, boys expected that they would have to do more housework if they were females.

> "If I were a boy, I wouldn't have to babysit" (p. 9). (6th grade girl)

Effect #9 - "Males and females are taught only those skills which are consistent with traditional sex roles" (p.9). Students of both sexes appeared to value traditionally male activities whereas traditional female activities were rarely mentioned; and when they were, the students viewed them as undesirable.

> "If I were a boy, my dad would do more things, like teach me how to work with wood" (p.9). (6th grade girl)

Effect #10 - "Males and females exclude themselves from courses and extracurricular activities in school that develop interests and talents which are valuable to both sexes" (p.11). Students perceive traditionally male courses (automotives, computers, science, and math) as being more appropriate for males and traditionally female courses (home economics, typing) as being more appropriate for females.

> "I would take classes like drafting and woodshop, and I couldn't take Home Economics" (p.10). (11th grade girl)

Effect #11 - "Females receive better treatment from teachers, but males get more encouragement to achieve" (p.11). The differential treatment of students, on the basis of sex, by teachers was often perceived as inequity. Students perceived that individual teachers displayed definite preferences for either sex.

> "The best thing about [being a girl] is that the teacher would favor you" (p.11). (6th grade boy)

Effect #12 - "Both males and females are taught that being male is inherently better than being female" (p.12). The majority of negative remarks which were written about the opposite sex were written by boys and covered a wide range of areas (intelligence, self-worth, dress).

> "If I were a girl, I'd be stupid and weak as a string" (p.12). (6th grade boy)

Summary

The twelve underlying themes identified by Baumgartner Papageorgiou highlight the damaging and debilitating effect gender stereotyping has on students' perceptions of the opposite gender. Moreover, it appears that gender role stereotyping has had more of a negative impact on females than males, particularly in the occupational domain. Females are perceived as selecting occupations from a restricted range of options and as aspiring toward

occupations that are less rewarding than the occupations sought by their male peers. Furthermore, both the boys and girls in Baumgartner Papageorgiou's study perceived housework and childcare as being primarily the female's responsibility. It is evident from the students' responses that the students in Baumgartner Papageorgiou's study still regard traditional gender roles as their only option and that gender-role stereotyping negatively impacts female's occupational choices.

6. Labour Canada Study on the Career Expectations and Aspirations of Canadian Schoolchildren

In an attempt to understand the current state of schoolchildren's attitudes toward their career aspirations, the Women's Bureau of Labour Canada funded this pilot project. The principal investigators, Ellis and Sayer, conducted a study which included 364 girls and 342 boys from Quebec, Ontario and Saskatchewan ranging in age from 6 to 14. These schoolchildren came from a variety of socio-economic, cultural, and linguistic backgrounds (p. vii).

Data was collected primarily by means of a questionnaire that was administered to children in their classrooms and supplemented with discussion groups with small groups of children about the reasons for their written responses. (Refer to Appendix I for the questionnaire designed by the investigators.) The investigators attempted

to identify the personal, school, and family background factors that were related to the traditionality of the children's own occupational choice, the children's preferences for certain activities, and the children's expectations concerning certain occupations. They found that gender, irrespective of all other factors, including age or educational level, was significantly related to the children's responses to these topics. By comparison, all other factors (e.g. country of birth, mother tongue, parents' occupation, number of siblings) were insignificant. Although the Labour Canada questionnaire consisted of items that pertained to family background, these items were beyond the scope of this study and, therefore, were not included in the questionnaire employed in this study.

a. Traditionality of Children's Occupational Choices

Traditionality of children's occupational choices was determined by assessment of the 1981 Canadian census data (see p. 58 for definition of traditionality). With respect to the question "What do you want to be when you grow up?" two thirds of the children nominated traditionally masculine occupations, one sixth nominated traditionally feminine occupations, and the remaining sixth nominated moderate occupations (40 to 60 percent of workers in these occupations are male or female). Closer scrutiny and analysis of the data revealed a very large gender difference

in the traditionality of children's choice of an occupation. In the case of girls, 32 percent identified occupations that are traditionally feminine, 25 percent selected occupations which are neutral, and 43 percent chose occupations that were traditionally masculine. The responses of the boys revealed a different pattern: 93 percent chose traditionally masculine occupations, 6 percent mentioned occupations which were moderate, and only 1 percent selected traditionally feminine occupations. (See Table 3e, p. 91.)

No significant differences in the traditionality of girls' individual occupational choices were found on the basis of educational level.

b. Sources of Career Choices

Immediately following the question, "What do you want to be when you grow up?" was the question, "How did you get this idea?" Over 90 percent of the children identified the source of their interest in a particular occupation. The responses for all the children were categorized into nine categories and the results were as follows:

1) Relatives (parent or close relative - 19 percent
2) Personal Contacts (an individual other than a relative) - 11 percent
3) Media Influence (television programs or movies) - 8 percent

4) Nature of the Work (attraction to the occupation itself) - 25 percent

5) Personal Experience or Specific Ability (of some aspect of the chosen occupation) - 18 percent

6) Altruistic Motives - 4 percent

7) School Subject or School Counsellor - 3 percent

8) Job Opportunities or Extent of Remuneration - 2 percent

9) Peers - 1 percent

The powerful influence of relatives and other adults who serve as role models are highlighted in the foregoing results. The strong influence of the media (especially television) impacted greatly on the occupational decisions of schoolchildren.

c. Attractiveness of Selected Activities

Students were asked to respond whether they would "like a lot", "like a little", or "not like at all" to carry out 24 activities listed on the questionnaire. The investigators selected each activity because it exemplified one or more gender stereotypes. Appendix XII (p. 254) presents a summary of the percentages of boys and of girls who indicated their level of attractiveness to each activities along with the statistical comparisons that were conducted. For 21 of the 24 activities listed, the responses of the boys were significantly different from those of the girls, with .05 being the level of

significance. Generally, the stereotypes about male and female preference were confirmed.

According to the investigators, age was not related to the girls' response pattern to the attractiveness of the listed activities. However, they found that on some items that were oriented toward females' preferences, the proportion of "like a lot" response declined with age. Examples included taking tickets at a movie show, serving people in a restaurant, and selling things at a store.

d. Expectations of the Gender Composition of Some Occupations

The students were asked to imagine the boys and girls in their class when they became adults and to express their expectations regarding who would be working in each of the 19 occupations listed. The response categories included "only girls", "only boys", and "both girls and boys". One criteria for the selection of occupations was the proportion of men and women currently employed in each occupation. The investigators had some occupations that were predominantly masculine (e.g. dentist and bank manager), some that were predominantly feminine (e.g. social worker and secretary) and some occupations in which neither gender made up more than 60 percent or fewer than 40 percent of the people presently employed in those occupations.

The investigators found that the boys and girls did have different expectations about the gender composition of

approximately half of the occupations listed. (See Appendix XV, p. 264) A salient finding was the high proportion of both boys and girls who believed that most of the occupations listed could be filled by both men and women. The percentages of children who indicated that both "boys and girls" would be in the occupation had a median of 64. The range in this category was from 80 percent for doctors to 30 percent for forest rangers.

An analysis of the number of children who believed that "only girls", "only boys", and "both girls and boys" would as adults be in that occupation revealed a significant difference between those occupations that are traditionally feminine and those that are traditionally masculine. The investigators reported that both boys and girls were much more likely to imagine both men and women in occupations that were traditionally male than they were to imagine men in occupations that were traditionally female. This pattern is exemplified in the following findings: approximately two thirds of the children perceived that in the future only women would be employed as secretaries and nurses. However, less than a third believed that all bank managers would be men.

For most of the occupations listed there was no relationship found between the age of girls and their expectations of gender segregation. However, a significant relationship was found for the traditionally female occupations of secretary, nurse, elementary-school teacher

and librarian. With increasing age, girls were more likely to perceive these occupations as being filled by females only. The investigators attempt to explain this finding by suggesting that girls become more perceptive with age and come to realize that very few boys have any interest in pursuing these occupations.

e. Summary

The investigators concluded that gender-role stereotyping is pervasive among Canadian schoolchildren. Boys and girls were found to be significantly different in their responses to the items about the attractiveness of activities that involved responsibility, mechanical skills, and post-secondary education. Nevertheless, there was considerable overlap, with some girls indicating that they would enjoy certain activities that were not congruent with the feminine stereotype and some boys whose responses indicated an aversion to particular activities considered to be associated with being masculine.

Although high percentages of boys and girls believed that both men and women would be engaged in the labour force when they became adults, there were some significant differences. Participation of women in traditionally male occupations like dentist and doctor had a higher level of expectancy than did the participation of men in traditionally female occupations such as secretary and nurse.

Girls' belief in the future participation of women in predominantly male occupations was not consistently reflected in girls' individual career choices. The need for girls, in particular, to be made aware of the realities of life for adult women was highlighted.

The investigators concluded by identifying the need for a similar type of research project to be conducted among students at the secondary level. Such a study would provided insights into the occupational plans of young people as they approach entry into the labour force.

C. Questions for Investigation

This study was designed to replicate and broaden the scope of a) the 1982 Baumgartner Papageorgiou study of students' perceptions of gender roles and b) applicable portions of the 1986 Labour Canada project on Career Expectations and Aspirations of Canadian Schoolchildren. The following questions were investigated:

1. Students' Perceptions of Gender Roles

1.1 Do the twelve themes identified by Baumgartner Papageorgiou emerge from the students' responses?

1.2 Do additional themes emerge from the students' responses?

1.3 Are there differences between male and female students' frequency of response to the themes or subthemes?

1.4 Are there differences among upper elementary, junior high, and senior high students' frequency of response to the themes or subthemes?

2. Traditionality of Occupational Choices

2.1 Is there a difference between male and female students' traditionality of occupational choices?

2.2 Is there a difference among upper elementary, junior high, and senior high students' traditionality of occupational choices?

2.3 With respect to the traditionality of occupational choices, how do the findings at the upper elementary level compare with the findings of Labour Canada?

3. Sources of Occupational Choices

3.1 Are there differences between male and female students' sources of occupational choices?

3.2 Are there differences in the sources of occupational choices among upper elementary, junior high, and senior high students?

3.3 With respect to the sources of occupational choices, how do the findings at the upper elementary level compare with the findings of Labour Canada?

4. Attractiveness of Selected Activities

4.1 Are there differences between male and female students' level of enjoyment of certain gender-stereotyped activities?

4.2 Are there differences among upper elementary, junior high, and senior high students' level of enjoyment of certain gender-stereotyped activities?

4.3 With respect to males' and females' enjoyment of certain gender-stereotyped activities, how do the findings at the upper elementary level compare with the findings of Labour Canada?

5. Future Gender Composition of Selected Occupations

5.1 Are there differences between male and female students' expectancy of the gender composition of selected occupations?

5.2 Are there differences among upper elementary, junior high, and senior high students' expectancy about the gender composition of selected occupations?

5.3 With respect to male and female students' expectancy of the gender composition of some occupations, how do the findings at the upper elementary level compare with the findings of Labour Canada?

CHAPTER III

METHODOLOGY

A description of the research instrument employed, the procedures undertaken for the collection and treatment of data, the subjects, project approval and implementation, and the procedure employed for analyzing the data are outlined in this chapter.

A. Description of the Research Instrument

The research instrument employed for this study was a replication, in part, of the questionnaire designed for the 1986 Labour Canada study on Career Expectations and Aspirations of Canadian Schoolchildren (refer to Appendix I) and a replication of the question posed by Baumgartner Papageorgiou (1982). Baumgartner Papageorgiou's question was designed to elicit students' perceptions of gender roles whereas the purpose of the Labour Canada study was to gain insight into the career aspirations and expectations of elementary schoolchildren.

Several deletions and adjustments were made to the original Labour Canada questionnaire developed by the principal investigators, Ellis and Sayer. The items that pertained to gender and grade of the respondent were deleted and were respectively coded (a two digit number for the grade; 1 - male and 2 - female) and recorded in the upper right hand corner along with a randomly assigned three digit student number (001 - 160). Since the investigator was

interested only in the educational level of the students, the respondents were not asked to record their age. The Labour Canada study asked respondents to indicate a second occupational choice and to list other jobs they might like to do when they get older. As these items were beyond the scope of the present study, they were deleted. Likewise, items that pertained to the respondents' country of birth, mother tongue, family size and gender composition, cohabitation with parents, and parents in remunerative employment were also deleted.

The activity "drive a tractor" was included in the section of the questionnaire that was designed to assess the respondents' attractiveness to selected activities (refer to Appendix II). This activity was included because the subjects in this study reside in a predominantly agrarian based community. Similar reasoning also led to the addition of "farmer" to the list of occupations presented to the respondents in order to ascertain their expectancy of the gender composition of the selected occupations during their adulthood. Furthermore, the occupation "guidance counsellor" was also added in order to ascertain whether exposure to only female role models in the subjects' school would influence their expectancy (see Appendix II).

Following the section that investigated the respondents' perceptions of the labour force during their adult years, Baumgartner Papageorgiou's question, "If you woke up tomorrow and discovered that you were a (boy)(girl),

how would your life be different?" (p.2). was included on a separate lined page to provide ample space for the respondents to reply in a narrative or point form. To avoid confusion about the Baumgartner Papageorgiou question (boy/girl), a survey, form 1 for males and form 2 for females was developed (see Appendix II).

B. Data Collection and Treatment

The research instrument employed in this study was comprised of a number of sections (see Appendix II):

Items 1 - 6 Background Information

The six dashes respectively separated by diagonal lines in the upper right hand corner allowed the writer to document the following pertinent information:

a. Randomly assigned three-digit student number (001 - 160).

b. Gender of the respondent.

1 - male

2 - female

c. Grade of the respondent (04 - 12).

Item 7. Traditionality of Occupational Choices

Respondents were asked, "What do you want to be when you grow up?" Responses were coded in the left-hand margin according to procedure developed and employed by the investigators in the Labour Canada Study. The traditionality of occupations selected by the students was determined by gender composition of the respective

occupations according to the 1981 Canadian census data. (The 1986 Canadian census data on the gender composition of occupations was not available.) The respondents' occupational choices were coded (1, 2, or 3) according to the following categories:

1. Traditional male - More than 60 per cent of the workers in these occupations are male.
2. Moderate - Forty to 60 per cent of workers in these occupations are male (or female).
3. Traditional female - More than 60 percent of workers in these occupations are female.
4. Unclassified

8. Sources of Occupational Choices

In reference to the students' occupational choice, students were asked the following open-ended question, "How did you get this idea?". Responses were coded in the left-hand margin according to the categories developed and employed by the investigators in the Labour Canada Study. Moreover, three additional categories were identified by the investigator (10 -12).

1. Relatives (parent or close relatives)
2. Personal Contacts (individuals who are not relatives)
3. Media Influence (television, movies, books,

magazines)

4. Nature of the Work (attraction to work itself)
5. Personal Experience or Specific Ability
6. Altruistic Motives
7. School Subject or School Counsellor
8. Job Opportunities or Extent of Remuneration
9. Friend(s)
10. Exposure to Occupation or Visit to Work Site
11. Career Exploration
12. Unclassified

Items 9 - 33 Attractiveness of Selected Activities

Respondents were asked to place a check mark in the appropriate column that best described how they would feel, as adults, about performing the selected activities. The students were provided with the following three degrees of attractiveness:

1. like a lot
2. like a little
3. not like at all

This section was self-coded.

Items 34 - 54 Expectations of the Gender Composition of Selected Occupations

Students were also asked to place a check mark in the appropriate column that best described their perception of the gender composition of the selected occupations. Specifically, they were asked to imagine what occupational

roles their male and female peers would occupy as adults. The students were asked to classify the occupations according to the following three categories:

1. Girls
2. Boys
3. Both Boys and Girls

This section was self-coded.

Item 55 Perception of Gender Roles

Respondents were asked to respond to the question, "If you work up tomorrow and discovered that you were a (girl)(boy), how would your life be different?" The qualitative written responses were carefully scrutinized to identify the underlying themes that emerged. Moreover, these themes were compared with the themes identified in the Baumgartner Papageorgiou study.

C. Description of the Sample

The sample in this study consisted of all 160 upper elementary and secondary students who attend Andrew School in the County of Lamont, Alberta. All students in grades 4 through 12 who attend Andrew School completed the questionnaire. There was a total of 77 boys and 83 girls in this study. (See Table 1)

Andrew is an agrarian based community; therefore, the majority of these students reside on farms and their parents are farmers.

Table 1
Distribution of the Subjects by Educational Level and Gender

ANDREW SCHOOL

EDUCATION LEVEL	GRADE	TOTAL	BOYS	GIRLS
UPPER ELEMENTARY	4	16	9	7
	5	20	8	12
	6	16	5	11
		52	22	30
JUNIOR HIGH	7	15	6	9
	8	26	11	15
	9	16	10	6
		57	27	30
SENIOR HIGH	10	14	7	7
	11	16	8	8
	12	21	13	8
		51	28	23
GRAND TOTAL		160	77	83

D. Project Approval and Implementation

Communication with the head of Labour Canada's editorial, design and publishing services resulted in non-exclusive rights to reproduce excerpts from Labour Canada's Study for the purposes of this study (refer to Appendix III).

Approval to administer the questionnaire to the grades 4 through 12 students was requested (refer to Appendix IV) and secured from the County of Lamont Board of Education and Superintendent of Schools (refer to Appendix V). The

Principal of Andrew School was informed of the questionnaire and its purpose. By means of a covering letter (refer to Appendix VI) and a Parent/Guardian Consent Form (refer to Appendix VII), parental consent was sought; 100% of the parents or guardians of the respective students approved of the project.

The questionnaire was administered to groups of children in their own classrooms by the investigator on January 10th, 1989. The absence of eight students on January 10th, 1989 prompted the investigator to request and subsequently receive the assistance of the Vice-Principal of Andrew School to administer and collect the questionnaire from these students during the week of January 16th, 1989. Instructions were clearly written on the questionnaire and students were informed that the data would be kept confidential.

E. Analysis of Data

The combination of the Labour Canada study and the Baumgartner Papageorgiou study dictated that the analysis of data be conducted quantitatively with the data collected for items 1 through 54, and qualitatively for item 55.

1. Quantitative Analysis

The chi-square (χ^2) was the statistical method employed to analyze the data collected for items 1 through 54. Since the data collected involved frequencies, the

chi-square was determined to be most appropriate. Moreover, the investigators of Labour Canada study (1986) employed the chi-square test of independence to identify the variables that were related to children's preferences for certain activities, their expectations concerning gender segregation in the future labour force, and the nature of their own occupational choices. A chi-square test of independence was used on categorical variables such as gender, educational level, traditionality of occupational aspirations, sources of occupational aspirations, attractiveness of selected activities, and expectations of the gender composition of selected occupations.

A two-way chi-square was employed to determine the independent influence of gender and educational level for items 7 through 54. A three-way chi-square was employed to determine whether there was a difference at each of the three educational levels, between male and female students' responses; and between gender and each of the three educational levels for items 7 through 54. The investigators of the Labour Canada study employed the .05 level of significance for all analyses; therefore, the .05 level of significance was also employed for this study.

2. Qualitative Analysis

The subjects' descriptive written responses to the question, "If you woke up tomorrow and discovered that you were a (boy)(girl), how would your life be different?"

dictated the use of qualitative analysis. Specifically, the phenomological research process was employed because its methods are best suited for describing the personalized experiences which the investigator is attempting to document. The students' descriptions of how their life would be different if they became a member of the opposite gender represent holistic descriptions of their experiences and, therefore, the raw data for analysis.

Phenomenology is one approach to human science research methodology. Human science views humans as having purposeful inner qualities that cause them to create their own world view through their own shared-world experience. Moreover, human science methodology is fundamentally descriptive and reflective. (Sharon, 1989). Valle and King (1978) outlined certain assumptions about humans which are central to the human science research methodology. These assumptions include the ideas that humans must be studied within their own context and within their own life experiences and that humans science attempts to understand the most basic structures or essence of humans' experiences.

Data analysis becomes the process of accurately describing the basic structures of the recorded experience while recognizing that the holistic integrity of the experience must be preserved. It is the task of the investigator to describe the phenomena with the purpose of "lifting" the data out, without destroying the holistic meaning implicit within the phenomena, so that it can reveal

its own basic structure. This process of reduction is necessary in order to identify the essential and basic meaning of the phenomena being studied (Sharon, 1989).

After lifting out the basic structures of meaning from the subjects' descriptions, the investigator examines them for intentionality or pre-reflective meaning. These basic structures of meaning are categorized according to general themes (Sharon, 1989).

The following procedures were employed in the qualitative analysis of the students' written responses to the aforementioned question:

1) Formulated Meaning Extracted from Verbatim Written Statements (refer to Appendix VIII).

2) Identification of Emergent Themes Among Male and Female Students At Each Educational Level (refer to Appendix VIII)

3) Tabular Summary of Themes Identified From Verbatim Statements Made by Male and Female Students at Each Educational Level (refer to Appendix IX)

4) Tabular Summary, at Each Educational Level, of Male and Female Students' Theme Frequency (refer to Table 2, p.82)

F. Summary

The replication of the Baumgartner Papageorgiou (1982) and Labour Canada (1986) studies necessitated the

implementation of both a qualitative and a quantitative approach to data analysis.

The data collected were analyzed to determine whether educational level and gender factors are related to the respondents' perceptions of gender roles and their occupational aspirations and expectations. The impact of these factors were analyzed to obtain the findings presented in the following chapter. In addition results were compared with findings of the Baumgartner Papageorgiou Study and the Labour Canada Study.

CHAPTER IV

RESULTS AND DISCUSSION

This chapter focuses upon the results obtained from the study conducted as outlined in Chapter III. The results are presented and discussed in the form of answers to the questions for investigation. Numerous tables have been included to substantiate the interpretation of both the qualitative and quantitative data. The questions for investigations have been organized into the following sections: Students' Perceptions of Gender Roles, Traditionality of Occupational Choices, Sources of Occupational Choices, Attractiveness of Selected Activities, and Future Gender Composition of Selected Occupations.

Questions Investigated

1. Students' Perceptions of Gender Roles

    1.1 Do the twelve themes identified by Baumgartner Papageorgiou emerge from the students' responses?

The twelve themes identified by Baumgartner Papageorgiou do emerge from the students' responses; however, the method of categorization of themes employed by the investigator in this study differs from the method of categorization employed in the original study. The method of categorization used here emerged from the

phenomenological analysis of the students' written comments. The investigator lifted the meaningful data out of the students' formulated statements so that a basic theme(s) emerged. The emergent themes were then categorized into subthemes and then further categorized into major themes.

With reference to the twelve themes described by Baumgartner Papageoriou (see pages 39 through 44), a descriptive commentary supplemented with examples will testify to the emergence of these twelve themes in the present study.

Effect #1: Occupational Options - Many students stated that their occupational aspirations or expectations would be affected by a change in gender. Moreover, some students still adhere to traditional gender typing of roles; they believe that a man should be the primary breadwinner and support his family whereas a woman should become a homemaker or pursue an occupation that is considered supplementary. A senior high female commented: [If I were a boy,] "I would probably also have to worry about having to support a family from the pay I make." A junior high male explained that [If I were a girl,] "People would expect me to do women's work like clean house or be a secretary."

Effect #2: Value of a Career - There were students at all three educational levels that gender-typed occupations. Some comments included: [If I were a boy,] "I would be a doctor" (upper elementary female). [If I were a girl,] "I

could be a nurse" (upper elementary male). [If I were a boy,] "I would probably go for a more masculine job" (junior high female). [If I were a girl,] "new careers after changing would probably involve nursing, childcare or something like counselling or something in those fields" (senior high male).

Some of the occupations specified by females as those that they would consider if they were males included doctor, astronaut, farmer, truck driver, and mechanic. These occupations tended to be prestigious, to be well-paid, and to require extensive post-secondary training or to be considered "masculine" in nature. Male students tended to name such person- or service-oriented occupations as hairdresser, nurse, homemaker, childcare worker, counsellor, and secretary; with nurse being the most popular choice. Rather than enumerating occupational possibilities available to females, many male students tended to focus on the occupations that they perceived that they no longer could pursue as females; these included professional hockey player, mechanic, firefighter, farmer, truck driver, wrestler, engineer, carpenter, accountant, forestry worker, and funeral director.

Occupations that were either named or referred to by individual students as being open to both males and females included accountant, architect, astronaut, broadcaster/producer, business person, dancer, farmer, kindergarten teacher, lawyer, nurse, office worker,

photographer, and police officer. Females were more likely than males to name and classify occupations as being open to both males and females.

Many males perceived that their occupational options would be restricted: "I don't think as many opportunities would be open to me as a woman" (senior high male). [If I were a girl, it would] "Cut down on types of occupations" (senior high male). Females, on the other hand, often perceived more or better occupational opportunities: [If I were a boy, there would be] "Hardly any limits on the career I would want to choose." "Men have better opportunities for very high jobs - for executive companies and board of directors. How many women do you see on the board of directors for big companies?" (senior high female). "I think that there would be many better jobs that I could choose to satisfy what I want with many more opportunities for advancement. Therefore, I think I could get further in life if I was a boy" (senior high female). One senior high female pointed out the pay inequality that exists between males and females: "My pay roll may possibly be higher considering the discrimination between men and women."

At the senior high level, some students commented that inroads are being made by females in securing nontraditional occupations. Commenting on his occupational aspiration if female, one senior high male student explained that "there would be no change because women are respected in the working world and are beginning to get into many

male-related jobs." Although some inroads are being made by females, one perceptive senior high female wrote: "Although many jobs can be either sex, there are some jobs mainly opened for men." Furthermore, senior high males recognized that females experience more "hassle getting" traditionally male occupations and that they "have to work harder to achieve an equivalent level to that of a man."

Effect #3: Appearance as an Asset - Both males and females at all three educational levels commented that females are more concerned about their appearance than males are. Some typical comments included: [If I were a boy, I would] "Get dressed and ready faster" (junior high female). [If I were a girl,] "I would be spending more time with my hair, my face, and my clothes" (senior high male). Females were consistently characterized as wearing their hair long, coiffing their hair more than males, wearing earrings, and wearing make-up. Many males perceived that females spend more money than males on personal care products and cosmetics. A change in clothing was frequently mentioned by both male and female students, thereby, implying that clothes are gender-typed.

Statements made by students suggest that females, in contrast to males, are judged solely on their appearance. For example, one senior high female wrote [If girls were boys, you] "wouldn't be judged on how you dress or don't dress." [I could] "Wear what I want." One junior high male said, [If I were a girl,] "I couldn't leave the house

without my hair just right." Upper elementary female students were also aware of this difference between being male and being female: [If I were a boy,] "I would wear runners all of the time." [If I were a boy,] "I would wear joggers alot." [If I were a boy,] "I'd get dirty more."

Effect #4: Females as Sex Objects - Males and females both made reference to males' treatment of females. For example, one upper elementary female was determined that, as a boy, she would not treat girls as she has been treated by her male peers: "I would be nice to girls. That means no burping and I'd treat girls like they had feelings too and were not just things for boys to tease." However, other females felt that being male meant they "could bug girls" (junior high). One upper elementary male wrote: [If I were a girl,] "The boys would be chasing me" (upper elementary)."

Statements made by both male and female students tended to normalize the treatment of females as sex objects. For example, some comments included: [If I were a boy,] "I could wink at girls" (junior high female). "If I was super good looking [as a girl], I would go to get a good job using my body" (senior high male).

Effect #5: Male-typed Behavior - A change in behavior was frequently mentioned by students. Aggression and violence was associated with being male and this is reflected in the following comments made by upper elementary females: "Some boys would try to beat you up." "I would shoot gophers."

"I would get kicked." In contrast to females, males are expected to engage in such "rough games like like soccer and football" (upper elementary female).

Bravery was also associated with being male and this was recognized by an upper elementary female who reported: [If I were a boy,] "I wouldn't be scared of mice and other bugs and creatures." Males are also expected to "act big and tough" (junior high female) and to be "more rambunctious" (junior high female) than females.

Getting into trouble was frequently cited as being an integral part of being male and of being accepted by one's male peers. One upper elementary female summed it up well: [If I were a boy,] "I would have to kind of get in trouble to avoid being called names."

Effect #6: Female-typed Behavior - In contrast to aggressive behavior expected of males, females are expected to "act soft and gentle" (junior high female). Furthermore, students stated that females are not expected to "get in trouble" (upper elementary female), "be an assassin" (upper elementary male), "wield heavy guns" (upper elementary male), nor be involved in as much fighting as males are (junior high male).

It is particularly noteworthy that upper elementary girls commented that they report the misbehavior of their male peers to school authorities; this is indicative of females' compliant nature. For example, an upper elementary female wrote: [If I were a boy,] "All my friends would be

boys and we would always get in trouble because the girls would tell on us for something."

Effect #7: Freedom Versus Restriction - Females anticipated more freedom as males whereas males expected to encounter more restrictions as females. Typical comments made by females included: [If I were a boy,] "I would play more sports" (upper elementary female). [If I were a boy,] "I'd be able to go out more". [If I were a boy, I would] "Probably have my driver's and be able to get out more" (senior high female).

Participation in sports generated much discussion about differences between males' and females' freedoms and restrictions. Females and males both associated being male with participating in a wider-range of sports. Furthermore, males frequently drew attention to the fact that being female would restrict their participation in certain sports, particularly hockey. One upper elementary male student explained that being a female would involve giving up a "like for sports" whereas a junior high female reported that being male meant she "would play sports like hockey, soccer, football, rugby, etc."

Students often commented that males spend more time outdoors whereas females spend more time indoors; however, these comments often referred to the type of home responsibilities students would be assigned and this is discussed in Effect #8.

Effect #8: Domestic Responsibilities - The expressions made by students testify to the differential gender expectations about home and childcare responsibilities. A major distinction emerged from the students' responses that pertained to indoor versus outdoor home responsibilities: females are expected to perform household work whereas males are relied on to accomplish outdoor or farm-related chores. Typical comments included: [If I were a boy,] "I would do outside work instead of inside work (upper elementary female). [If I were a boy,] "The work that I was given probably wouldn't be housework" (junior high female). [If I were a girl,] "I would take care of the house" (junior high male). [If I were a girl,] "I can't drive tractor and I can't go to the farm" (upper elementary male). One junior high female eagerly anticipated the change in duties that would accompany a change in gender; she stated, "My chores at home would change; instead of doing dishes (yuk), I'd feed the pigs."

In addition to housework, some students classified cooking, doing dishes, and looking after children as being the female's responsibility. [If I were a boy,] "I can't do dishes" reported an upper elementary female and "I wouldn't get to babysit" explained another upper elementary female. A junior high male wrote: [If I were a girl,] "I would have to learn to cook." Contrary to traditional gender role expecations, one senior high female stated that "men are able to cook too." This might suggest that females are

beginning to expect their spouses to share homemaking responsibilities.

In contrast to females, students reported that males are given more responsibilities at home and that these responsibilities often involve the use of physical strength. Some typical comments included: [If I were a boy,] "I would do harder work" (upper elementary female). [If I were a boy,] "My parents would give me more responsibilities around the house."

Effect #9: Skills Taught - Only a few expressions were made by students that suggested that males and females are taught only those skills which are consistent with traditional gender roles. The comments that did suggest that differential skills are taught on the basis of gender included: [If I were a boy,] "I'd have to cut wood in the summer" (upper elementary female). [If I were a boy,] "I would also have to learn how to drive a tractor and other farm equipment" (junior high female). [If I were a girl,] "I would have to learn to cook" (junior high male). It is quite obvious from these few comments that males are taught agrarian and physically demanding activities whereas females are taught such domestic skills as cooking.

Effect #10: Development of Interests and Talents - Only a few statements made by students support the theme that males and females exclude themselves from school subjects and extracurricular activities that would prove valuable to both

males and females. A comment made by a senior high female succinctly states that male and female students hold different attitudes toward school subjects: "Perspectives on school subjects would change."

Based upon the students' written statements, it appears that males participate to a greater extent than females in the scope of physical activities included as part of the physical education program. Being male, according to this upper elementary female, means that she "would have to play or participate in all our school activities in physical education." Males continue to limit themselves to Industrial Education while females restrict themselves to Home Economics. This is indirectly supported by the following statements: "Careers should be a major change, especially if you were a home economics teacher" (senior high female). "I would have to enjoy ... Industrial Arts" (junior high female).

Although hockey and figure skating are not associated with the school, both males and females perceived hockey and wrestling to be a masculine sport, and figure skating and gymnastics to be a feminine sport. For example, a junior high female stated: [If I were a boy,] "The activities I do would change, like from the figure skating club to the hockey club." The following statement made by an upper elementary male is representative of numerous statements made by male students: [If I were a girl,] "I wouldn't be able to play hockey." With reference to the numerous

statements made by male students that expressed their regret in not being able to play hockey anymore, hockey appears to capture the essence of the traditional male role: a hockey player is physically strong, aggressive, and competitive. Figure skating is female-typed and can be described as a graceful, poised, and aesthetic sport.

Effect #11: Differential Treatment by Teachers - Students perceived that they receive differential treatment from their teachers on the basis of gender. One upper elementary female thought that male students are more likely than female students to be reprimanded by school personnel: [If I were a boy,] "The girls would be trying to kick us boys and they would chase us around the school. And we would get into trouble, get sent to the office. Get detention." Some students also perceived that teachers favor female students: [If I were a girl,] "In school I would be favored" (junior high male). [If girls were boys,] "We would always be the one to get the wrong answers. And the girls would get everything correct" (upper elementary female).

There were no statements made to support the latter part of Baumgartner Papageorgiou's Effect #11: students did not suggest that males get more encouragement to achieve from teachers than females.

Effect #12: Gender Value - Both males and female intimated that they valued being male whereas only female students made comments that implied that they valued being female.

Furthermore, there were more comments made by males devaluing being female than there were by females devaluing being male. The negative comments directed against females represented a wide range: "If I were a girl, I would hate it because I wouldn't be as strong and I would have to buy more stuff like bras, and stuff like that" (junior high male). [If I were a girl,] "I would be weak, stupid, and silly" (upper elementary male). [If I were a girl,] "My whole lifestyle would be shot" (senior high male). [If I were a girl,] "First of all, I would scream!" (senior high male).

Likewise, some females also devalued being male. One junior high female stated, "I don't think I would like my life if I changed into a guy." Another junior high female regretfully felt that her occupational plans would need to be abandoned if she were a male: "My life would be ruined because I would like to own or work in a daycare or a plant nursery." There was also regret expressed by a senior high female about not being able to bear children: "If I was a man, I certainly could not bear a child. This would be a big loss because some day I hope to have children."

Other females placed a greater value on being male than female. As one junior high female explained [If were a boy,] "I would love my life. No more long hair, girls' clothes, earrings, nylons, make-up, girls' shoes, bras, curling irons, etc." With respect to the occupational domain, some females also referred to the opportunity for

more advancement, increased opportunities, more prestigous jobs, and higher salaries that they would enjoy as males.

Summary

Although the investigator employed a different method of categorization, the twelve themes identified by Baumgartner Papageorgiou emerged from the students' responses. The findings of this study concur with Baumgartner Papageorgiou's finding that gender role stereotyping can create damaging and restricting effects; however, inroads appear to have been made in eradicating gender role stereotypes, particularly at the senior high level.

Gender-role stereotyping still appears to dominate the occupational aspirations of the majority of schoolchildren. There were students at all three educational levels that gender-typed occupations. Females were perceived as having restricted occupational options whereas males were perceived as having more or better occupational opportunities. Moreover, males were perceived as having more opportunity than females to secure high-paying and prestigious jobs.

1.2 Do additional themes emerge from from the students' responses?

With reference to the twelve themes identified by Baumgartner Papageorgiou, additional themes do emerge from the students' responses in the present study. Table 2

presents the four main themes (personal characteristics, behavioral characteristics, social aspects, and occupational factors) along with the subthemes that emerged from the students' responses. Furthermore, Table 2 summarizes the frequency of students' responses at the theme and subtheme levels. (Refer to Appendix VIII for students' verbatim written statements, the formulated meaning, and the identification of subthemes and to Appendix IX for a tabular summary of themes identified from the respective verbal statements.)

a. Personal Characteristics

Personal characteristics were subdivided into appearance, physical, personal attributes, cognitive, and affective. The subtheme appearance was dealt with in question one under Effect #3. With respect to physical characteristics, students frequently referred to changes in anatomy. Typical comments included: [If I were a girl,] "I would have a different voice" (upper elementary male). [If I were a boy,] "My body would change since boys and girls both have extra body parts" (junior high female). Menstruation, child-bearing, and toileting also related to changes in anatomy. Students consistently expressed that males are stronger or more muscular than females. One junior high female explained, "We would be different in strength, etc. We would be stronger than the girls." Some students

Table 2
Tabular Summary of Theme Frequency

General Theme Structures	Upper Elementary		Junior High		Senior High	
	F	M	F	M	F	M
I. Personal Characteristics						
A. Appearance	42	11	30	27	11	12
B. Physical	16	7	19	25	6	3
C. Personal Attributes	12	3	13	5	10	5
D. Cognitive	-	2	2	2	1	3
E. Affective	-	-	6	1	1	0
Totals	70	23	70	60	29	23
II. Behavioral Characteristics						
A. General	12	5	5	3	-	1
B. Activities	19	12	14	3	5	4
C. Interests	11	3	6	1	3	3
Totals	42	20	25	7	8	8
III. Social Aspects						
A. Relationships	12	7	11	1	4	6
B. Differential Treatment	6	3	5	3	5	3
C. Home Responsibilities	6	3	12	6	4	1
D. Names	3	-	2	4	1	2
E. School Subjects	-	-	1	-	1	-
F. Gender Value	4	1	9	5	2	5
Totals	31	14	40	19	17	17
IV. Occupational Factors						
A. Gender Typing of Occupations						
1. General	-	-	2	-	2	1
2. Female	4	1	11	3	7	8
3. Male	2	5	6	6	4	15
B. No Gender Typing of Occupations	-	-	3	2	9	4
C. Other	2	-	6	4	12	14
Totals	8	6	28	15	34	42

F - Females M - Males

perceived that being male was associated with excelling in physical activities.

Both males and females perceived that they would experience changes in their personal attributes. A junior high female explained that if she were a boy, she would "Have different values, goals, and attitudes." Being female was perceived as being neat, having good habits, and being clumsy; whereas being male included being messy and brave. Gender differences in room, food, and colour preferences also emerged.

Some students referred to cognitive and affective changes. Several students thought that males and females were different mentally; however, only a couple of male students perceived that females were mentally inferior to males. For example, one junior high male stated that if he were a girl, he "would be a lot dumber". Perceived affective changes included feeling different and changes in maturity. One junior high female explained that [If I were a boy,] "I would feel different toward others."

b. Behavioral Characteristics

The general behavioral subthemes were discussed in question one, Effects #5 and #6. The younger male and female students pointed out that they would engage in different activities; they would have different toys, play different games, and engage in different types of play. The gender-typing of toys is highlighted by this upper

elementary female's comment: [If I were a boy,] "I would have to buy some boys' toys." One area which the students frequently identified as a difference between being male and female was that of sports. Their comments indicated that males usually participate in a wider range of sports and activities. As mentioned previously, male students participate in more aggressive, competitive, and physically-demanding sports; if females participated in any sports, they were restricted to female-typed sports such as figure skating or gymnastics. Females were characterized as spending much time talking on the telephone and as being avid shoppers.

Male and female students both made reference to changes in their interests. Only one male student commented that males and females could enjoy similar interests: "I would still have the same interests as I had when I was a boy" (senior high male). Males had difficulty identifying what new interests they would have as females; however, some stated that they would enjoy different television shows and would now enjoy shopping. One male felt as a female he "Would have to give up a like for sports" (upper elementary). Females, on the other hand, described being interested in a wider range of sports, different television shows, different books, different hobbies, different collections, different drawings, and in agrarian-related activities. One upper elementary female felt that as a male she "wouldn't like to read."

c. Social Aspects

Differences in home responsibilities, enjoyment of school subjects, and gender value were addressed in question one, Effects #8, #10, and #12 respectively. Relationships were an area that was commented on frequently by students. Both males and females made reference to a change in the gender composition of their friends; however, females appeared to be much more aware of the change in the gender composition of friends whereas males commented on the fact that they would have different friends. Typical comments included: [If I were a boy,] "I would lose all my girlfriends" (upper elementary female). [If I were a boy,] "I would hang out with the boys" (upper elementary female). [If I were a girl, I] "Would also have to make new friends" (senior high male). Several students commented on their attraction to individuals of the opposite gender and one junior high female perceived that she would encounter more dating expenses as a male. References were made to the different speech employed by males and females. One junior high female explained that [If I were a boy,] "My language would change from "Hi!" to "Hey you!""

Differential treatment received from teachers was discussed in question one, effect #11; however, students also referred to differential treatment they would receive from parents, family members, employers, and others. In particular, students felt that their parents would treat them differently. Female students felt that as males they

would benefit by being able to get "a truck" (senior high female), get their "driver's" (senior high female), get their "way more often" (senior high female) and "be able to go out more" (senior high female). Only one female commented negatively about how parents treat males: [If I were a boy,] "At home I would get blamed for everything." Although male students expressed that they would be treated differently as females, they did not elaborate. It is interesting that both a male and female commented that there is more pressure placed upon females.

Students were cognizant of the fact that names are gender-typed. Not only were male and female students aware of the fact that they would probably have another first name, two students commented on the impact a change in their gender would have on their surnames: [If I were a girl,] "My last name will change" (junior high male). [If I were a boy,] "I'd have my daddy's last name which I'd be very proud of" (senior high female).

d. Occupational Factors

The occupational factors were discussed in great detail in question one, Effects #1 and #2.

e. Summary

Students' perceptions were often dichotomized on the basis of gender and they perceived the following emergent

themes as being gender-related: personal characteristics (appearance, physical, personal attributes, cognitive, and affective), behavioral characteristics (general, activities, and interests), social aspects (relationships, differential treatment, home responsibilities, names, school subjects, and gender value), and occupational factors (gender-typing of occupations, non gender-typing of occupations and other). Despite the fact that some students' comments reflected quite liberal perceptions about the difference between being male and being female, gender stereotyping still appears to be quite pervasive among schoolchildren.

1.3 Are there differences between male and female students' frequency of response to the themes or subthemes?

Females were much more profuse and detailed in their narrative response to the question, "If you woke up tomorrow and discovered that you were a (boy)(girl), how would your life be different?" Therefore, it is not surprising that females responded with a greater frequency to all themes and all subthemes except the "cognitive" and "gender-typing of occupations: male" subthemes. (Refer to Table 2.)

Although there were relatively few students that referred to the cognitive aspect, it is noteworthy that more males (N = 7) than females (N = 3) commented on same. The males that did respond felt that females were less

intelligent than males, had a need to be more intelligent, or were different mentally. Only one male and one female stated that both males and females had equal intelligence.

More males (N = 26) than females (N = 12) classified occupations as being male-typed whereas more females (N = 22) than males (N = 12) classified occupations as being female-typed. Moreover, more females (N = 12) than males (N = 6) categorized occupations, particularly male dominated occupations, as being open to both males and females.

Perusal of the specific topics subordinate to the "other" subheading under the occupational domain reveals some gender differences that directly relate to students' occupational aspirations and, thereby, are worthy of consideration (See Appendix IX). With the change in gender, more females perceived increased occupational opportunities, a wider range of occupational options, and higher salaries. Furthermore, individual females expected to enjoy more opportunity for advancement and more prestigious occupations. With the change in gender, there were more males than females who perceived a restricted range of occupational options and limited occupational opportunities. Moreover, it is promising that both males and females stated that there should be gender equality or that both males and females should have equal opportunities.

1.4 Are there differences among upper elementary, junior high, and senior high students' frequency of response to the themes or subthemes?

Perusal of the subtheme differences between students at each educational level reveals a distinct pattern that can best be discussed at the main theme level. With reference to Table 2, upper elementary students responded at a greater frequency than junior high and senior high students to behavioral characteristics whereas junior high students responded at a greater frequency than upper elementary and senior high students to personal characteristics and social aspects. Senior high students concentrated their comments on the occupational domain to a greater extent than upper elementary and junior high students. Therefore, senior high students are much more aware that gender plays a significant role in their occupational aspirations.

A cogent finding that emerged at the subtheme level is that as students progress through the education system they appear to become more liberal in naming and classifying occupations as being for both males and females.

2. Traditionality of Occupational Choices

2.1 Is there a difference between male and female students' traditionality of occupational choices?

Table 3a, b, c, and d presents a summary by gender of the frequency and percentage of total, upper elementary, junior high, and senior high students, respectively that chose traditionally male, moderate (neither masculine nor feminine), traditionally female, and unclassified occupations. Chi-square statistical tests of independence found significant gender differences for traditionality of occupations for the total sample (χ^2 = 70.2, df = 3, p < .001), upper elementary (χ^2 = 19.1; df = 3, p < .001), junior high (χ^2 = 28.1; df = 3, p < .001), and senior high students (χ^2 = 26.4; df = 3, p < .001).

Thus, significant gender differences in the traditionality of occupational choices are prevalent among students in all comparisons: significantly more male students chose traditionally male occupations whereas significantly more females chose traditionally female occupations.

For example, 90% of all males (Table 3a) chose occupations that are traditionally male, 4% identified occupations that are moderate, and 6% selected occupations that could not be classified. It is interesting to note

Table 3
Traditionality of Occupational Choices By Gender

	Females No.	%	Males No.	%	Total No.	%
a. Total Sample						
Traditional male	26	(31)	69	(90)	95	(60)
Moderate	7	(9)	3	(4)	10	(6)
Traditional female	48	(58)	0	(-)	48	(30)
Unclassified	2	(2)	5	(6)	7	(4)
Total	83	(100)	77	(100)	160	(100)
b. Upper Elementary						
Traditional male	10	(34)	19	(86)	29	(56)
Moderate	4	(13)	1	(5)	5	(9)
Traditional female	15	(50)	-	-	15	(29)
Unclassified	1	(3)	2	(9)	3	(6)
Total	30	(100)	22	(100)	52	(100)
c. Junior High						
Traditional male	9	(30)	26	(96)	35	(61)
Moderate	2	(7)	-	-	2	(4)
Traditional female	18	(60)	-	-	18	(32)
Unclassified	1	(3)	1	(4)	2	(3)
Total	30	(100)	27	(100)	57	(100)
d. Senior High						
Traditional male	7	(31)	24	(86)	31	(61)
Moderate	1	(4)	2	(7)	3	(6)
Traditional female	15	(65)	-	-	15	(29)
Unclassified	-	-	2	(7)	2	(4)
	23	(100)	28	(100)	51	(100)
e. Labour Canada: Elementary						
Traditional male	156	(43)	315	(93)	471	(67)
Moderate	92	(25)	19	(6)	111	(16)
Traditional female	114	(32)	5	(1)	119	(17)
Total	362	(100)	339	(100)	701	(100)

that no male students aspired toward traditionally feminine occupations. The traditionality of the female students' occupational choices was quite different (Table 3a); 31% selected occupations that are traditionally male, 9% chose occupations that were moderate, 58% aspired toward occupations that are traditionally female, and 2% identified occupations that could not be classified. At all three educational levels the majority of students selected occupations that adhere to traditional gender-typing. Moreover, males appear to be more rigid than females in their gender-typed aspirations. Although the majority of female students selected traditionally female occupations, a relatively high percentage of female students at all three educational levels chose occupations that are traditionally male.

Popular occupational choices among males included farmer, mechanic, engineer, truck driver, professional athlete, pilot, and military officer. Females that selected traditionally female occupations tended to cluster their choices around person-oriented and service occupations such as nurse, teacher, social worker, and hairdresser. The females that aspired toward traditionally male occupations tended to select occupations that are highly paid, prestigious, and require a high level of education. Some of the traditionally male occupations that were chosen by female students included accountant, lawyer, veterinarian, doctor, dentist, astronaut, and professional athlete.

To summarize, females, who perceived a wider occupational choice range than males, nominated a greater number of different occupations. Males restricted their occupational choices to traditionally male occupations whereas females broadened their range of choices by selecting occupations from both traditionally female and traditionally male occupations. Moreover, gender was found to play an important role in influencing students' occupational choices and the majority of students' occupational choices were traditional for their gender. These effects were found across the upper elementary, junior high, and senior high levels.

2.2 Is there a difference among upper elementary, junior high, and senior high students' traditionality of occupational choices?

Table 4a, b, and c presents a summary by educational level of the frequency and percentage of total, male, and female students, respectively, that aspired toward traditionally male, moderate (neither masculine nor feminine), traditionally female, and unclassified occupations. Chi-square statistical tests of independence found no significant educational level differences in students' traditionality of occupational aspirations for the total sample (χ^2 = 2.23; df = 6, p = .896), for males

Table 4
Traditionality of Occupational Choices
by Educational Level

	Upper Elementary		Junior High		Senior High	
	No.	%	No.	%	No.	%
a. Total Sample						
Traditional male	29	(56)	35	(61)	31	(61)
Moderate	5	(9)	2	(4)	3	(6)
Traditional female	15	(29)	18	(32)	15	(29)
Unclassified	3	(6)	2	(3)	2	(4)
Total	52	(100)	57	(100)	51	(100)
b. Males						
Traditional male	19	(86)	26	(96)	24	(86)
Moderate	1	(5)	0	(-)	2	(7)
Traditional female	0	(-)	0	(-)	0	(-)
Unclassified	2	(9)	1	(4)	2	(7)
Total	22	(100)	27	(100)	28	(100)
c. Females						
Traditional male	10	(34)	9	(30)	7	(31)
Moderate	4	(13)	2	(7)	1	(4)
Traditional female	15	(50)	18	(60)	15	(65)
Unclassified	1	(3)	1	(3)	0	(-)
Total	30	(100)	30	(100)	23	(100)

(χ^2 = 2.6; df = 4, p = .624) and for females (χ^2 = 2.8; df = 6, p = .832).

Thus, educational level does not appear to significantly influence the traditionality of students' occupational choices. For example (Table 4a), the percentage of upper elementary, junior high, and senior high students' occupational choices, respectively, were as follows: 56%, 61%, and 61% of the students chose traditionally male occupations; 9%, 4%, and 6% selected moderate occupations; 29%, 32%, and 29% indicated traditionally female occupations; and 6%, 3%, and 4% chose occupations that could not be classified.

A similar pattern in traditionality of occupational aspirations emerged among each gender at all three educational levels: the majority of males aspired toward traditionally male occupations whereas the majority of females aspired toward traditionally female occupations. However, approximately one-third of the females at each of the three educational levels aspired toward traditionally male occupations whereas no males selected traditionally female occupations.

2.3 With respect to the traditionality of occupational choices, how do the findings at the upper elementary level compare with the findings of Labour Canada?

A comparison of the results of the present study for upper elementary students with that of Labour Canada is presented in Table 3b and e.

A chi-square test of independence reveals that there is a significant difference between male and female students' traditionality of occupational choices in both the Labour Canada Study (1986, p. 43) ($p = .001$) and the present study ($\chi^2 = 19.1$; $p = < .001$). In both studies significantly more males aspired toward traditionally male occupations and significantly more females selected traditionally female occupations. Moreover, significantly more females than males selected nontraditional occupations. Both studies support the finding that female students are more likely to chose nontraditional occupations than their male peers.

A major difference between the two studies is that a greater percentage of females aspired toward traditionally male occupations in the Labour Canada Study (43%) than in the present study (34%). However, a chi-square test of independence revealed no significant difference between the results of this study and that of Labour Canada ($\chi^2 = 6.5$; $df = 5$, $p = .259$).

3. Sources of Occupational Choices

3.1 Are there differences between male and female students' sources of occupational choices?

Table 5a, b, c, and d presents a summary by gender of the percentage of total, upper elementary, junior high, and senior high students, respectively, that identified particular sources of their occupational choices. Chi-square statistical tests of independence found no significant gender differences for sources of occupational choices for the total sample (χ^2 = 16.8; df = 11, p = .113), upper elementary (χ^2 = 8.74; df = 9, p = .461), junior high (χ^2 = 6.07; df = 8, p = .638), and senior high students (χ^2 = 16.67; df = 10, p = .082).

Therefore, no significant gender differences in the sources of occupational choices are prevalent among students in all comparisons. Although no significant gender differences emerged in students' sources of occupational choices, it is noteworthy that no male students identified as a source of their occupational aspirations either altruistic motives or friend(s) and that no female students attributed their occupational choice to job opportunities or extent of remuneration. Furthermore, popular sources of influence among both male and female students were nature of work, relatives, personal experience or specific ability, and media influence.

In summary, there were no significant differences between males and female students' sources of occupation choices: gender does not appear to play an important role in influencing students' sources of occupational choices.

Table 5

Sources of Occupational Choices by Gender

	Relatives	Personal Contacts	Media Influence	Nature of Work	Experience or Ability	Altruistic Motives	Subject or Counsellor	Opportunities or Remuneration	Friend(s)	Exposure or Visitation	Career Exploration	Unclassified
a) Total Sample												
Males	22%	3%	16%	29%	18%	-	3%	1%	-	1%	1%	6%
Females	22%	1%	10%	20%	18%	7%	5%	-	5%	6%	2%	4%
Total	22%	2%	12%	24%	18%	4%	4%	1%	2%	4%	2%	5%
b) Upper Elementary												
Males	27%	-	27%	36%	5%	-	-	-	-	-	-	5%
Females	20%	3%	24%	17%	10%	3%	3%	-	3%	14%	-	3%
Total	23%	2%	25%	25%	8%	2%	2%	-	2%	8%	-	3%
c) Junior High												
Males	18%	4%	15%	33%	18%	-	4%	-	-	4%	-	4%
Females	30%	-	3%	24%	27%	3%	3%	-	-	3%	-	7%
Total	25%	2%	9%	28%	23%	2%	3%	-	-	3%	-	5%
d) Senior High												
Males	21%	4%	7%	18%	28%	-	4%	4%	-	-	4%	10%
Females	13%	-	-	22%	17%	17%	9%	-	13%	-	9%	-
Total	18%	2%	4%	19%	23%	8%	6%	2%	6%	-	6%	6%
e) Labour Canada												
Total	19%	11%	8%	25%	18%	4%	3%	2%	1%	-	-	9%

This finding was consistent across the upper elementary, junior high, and senior high levels.

3.2 Are there differences in the sources of occupational choices among upper elementary, junior high, and senior high students?

Table 6a, b, and c presents a summary by educational level of the percentage of total, male, and female students, respectively, that identify particular sources of occupational choices. Chi-square statistical tests of independence found significant educational level differences for sources of occupational choices among the total sample (χ^2 = 37.3; df = 22, p. = .02) and female students (χ^2 = 37.0; df = 20, p. = 01); however, no significant educational level differences were found among male students (χ^2 = 17.5; df = 18, p = .486).

With reference to the total sample (Table 6a), significantly more upper elementary students identified media influence and exposure to an occupation or visit to a work site as sources of their occupational choices. Significantly more junior and senior high students than elementary students identified personal experience or specific ability as the source of their occupational choices. At the senior high level, significantly more students than at the elementary and junior high levels

Table 6

Sources of Occupational Choices
By Educational Level

	Relatives	Personal Contacts	Media Influence	Nature of Work	Experience or Ability	Altruistic Motives	Subject or Counsellor	Opportunities or Remuneration	Friend(s)	Exposure or Visitation	Career Exploration	Unclassified
a) Total Sample												
Upper Elem.	23%	2%	25%	25%	8%	2%	2%	-	2%	8%	-	3%
Junior High	25%	2%	9%	28%	23%	2%	3%	-	-	3%	-	5%
Senior High	18%	2%	4%	19%	23%	8%	6%	2%	6%	-	6%	6%
b) Males												
Upper Elem.	27%	-	27%	36%	5%	-	-	-	-	-	-	5%
Junior High	18%	4%	15%	33%	18%	-	4%	-	-	4%	-	4%
Senior High	21%	4%	7%	18%	28%	-	4%	4%	-	-	4%	10%
c) Females												
Upper Elem.	20%	3%	24%	17%	10%	3%	3%	-	3%	14%	-	3%
Junior High	30%	-	3%	24%	27%	3%	3%	-	-	3%	-	7%
Senior High	13%	-	-	22%	17%	17%	9%	-	13%	-	9%	-

identified altruistic motives and career exploration as sources of their occupational choices.

With reference to the female students (Table 6c), significantly more upper elementary female students than junior high and senior high females students identified media influence and exposure to an occupation or visit to a work site as the sources of their occupational choices. Significantly more junior high female students than upper elementary and senior high female students identified relatives and personal experience or specific ability as the sources of their occupational choices. At the senior high level, significantly more female students than at the upper elementary and junior high levels identified altruistic motives, friend(s), and career exploration as their sources. An important finding is that educational level exerts a differential effect on males' and females' sources of occupational aspirations: females' sources of occupational aspirations are significantly influenced by their educational level whereas males' sources of occupational aspirations are not significantly influenced by their educational level. Moreover, a relatively large percentage of students in all comparisons identified nature of work and relatives as being sources of their occupational choices.

3.3 With respect to the sources of occupational choices, how do the findings at the upper elementary level compare with the findings of Labour Canada?

A comparison of the results of the present study for upper elementary students with that of the Labour Canada study is presented on Table 5b and e. The results for Labour Canada are presented for the total sample only because they did not provide a gender breakdown for the sources of occupational choices for their subjects.

A chi-square test of independence reveals a significant difference between the sources of occupational choices among the upper elementary students in this study and the elementary students in the Labour Canada Study (χ^2 = 32.5; df = 9; p = .001).

An inspection of Table 5b and e reveals that a relatively high percentage of elementary students in both studies named nature of work and relatives as influencing their occupational choice. Upper elementary students in the present study appear to be more influenced by media and less influenced by personal experience or specific ability than the elementary students in the Labour Canada Study.

4. Attractiveness of Selected Activities

4.1 Are there differences between male and female students' level of enjoyment of certain gender-stereotyped activities?

Tables 7 and 8 (refer to Appendix X for the respective percentages for Table 8) summarize the data on male and female students' level of enjoyment of certain gender stereotyped activities for the total sample and by each educational level, respectively. Chi-square tests of independence for each of the activities at the .05 level revealed significant gender differences for 18, 11, 18, and 12 of the 25 gender-stereotyped activities for the total sample, the upper elementary students, the junior high students, and the senior high students respectively.

With reference to the total sample, males' and females' level of enjoyment of the majority of gender-stereotyped activities were significantly different. Male students expressed significantly greater enjoyment than female students in the following male-typed activities: piloting a plane, designing rocket ships, building furniture, repairing a toaster, fixing a car, telling other workers what to do, watching for forest fires and driving a tractor. Female students expressed significantly greater enjoyment than male students in the following female-typed activities: selling things to a store, delivering messages for business, taking

Table 7

Attractiveness of Gender-stereotyped Activities by Gender for Total Sample

Activity	Level of signficance of the gender difference	Percent of female/male students		
		Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	.001	71/18	27/49	2/33
Cut grass around the house	NSS*	51/67	40/30	9/3
Paint a fence	NSS*	56/68	31/28	13/4
Design rocket ships	.001	86/21	13/47	1/32
Watch for forest fires	.001	69/41	29/44	2/15
Build furniture	.002	73/47	23/41	4/12
Operate on a sick person	NSS*	61/70	23/22	16/8
Repair a toaster	.001	86/54	12/35	2/11
Be a school principal	NSS*	37/48	40/35	23/17
Fix a car	.001	77/11	15/37	8/52
Use a computer	NSS*	9/20	38/35	53/45
Work by yourself	NSS*	19/20	46/47	35/33
Tell other workers what to do	.006	22/16	49/30	29/54
Look after parks and gardens	NSS*	38/52	40/39	22/9
Drive a tractor	.001	71/28	24/37	5/35
Activities Stereotyped as Female				
Sell things in a store	.006	22/42	55/49	3/9
Deliver messages for business	.02	42/60	43/36	15/4
Take tickets at a movie show	.02	37/58	44/33	19/9
Read books	.001	16/59	28/29	56/12
Type letters for someone	.001	14/81	54/18	32/1
Play a musical instrument	.01	19/40	48/35	33/25
Work with poor people	.001	31/68	41/25	28/7
Look after small children	.001	7/70	37/30	56/-
Serve people in a restaurant	.001	25/69	46/23	9/8
Bake a cake	.001	22/62	40/35	38/3

*NSS - Not statistically significant

Table 8

Attractiveness of Gender-stereotyped Activities by Gender for Each Educational Level

Activity	Upper Elementary	Junior High	Senior High	Labour Canada Study
Activities Stereotyped as Male				
Pilot a plane	.001(M)	.001(M)	.001(M)	.001(M)
Cut grass around a house	NSS*	NSS*	NSS*	.001(M)
Paint a fence	NSS*	.006(F)	NSS*	NSS*
Design rocket ships	.001(M)	.001(M)	.001(M)	.001(M)
Watch for forest fires	NSS*	.005(M)	NSS*	.001(M)
Build furniture	.02(M)	NSS*	NSS*	.001(M)
Operate on a sick person	NSS*	NSS*	.005(F)	.001(F)
Repair a toaster	NSS*	.006(M)	.02(M)	.001(M)
Be a school principal	NSS*	.05(F)	NSS*	.001(F)
Fix a car	.001(M)	.001(M)	.001(M)	.001(M)
Use a computer	NSS	NSS*	NSS*	.001(M)
Work by yourself	NSS*	NSS*	NSS*	.05(M)
Tell other workers what to do	NSS*	.03(M)	NSS*	.001(M)
Look after parks and gardens	NSS*	NSS*	NSS*	NSS*
Drive a tractor	.001(M)	NSS*	.001(M)	-
Activities Stereotyped as Female				
Sell things in a store	.04(F)	.03(F)	NSS*	.001(F)
Deliver messages for business	NSS*	.04(F)	NSS*	NSS*
Take tickets at a movie show	NSS*	.001(F)	NSS*	.001(F)
Read books	.007(F)	.001(F)	.001(F)	.001(F)
Type letters for someone	.005(F)	.001(F)	.001(F)	.001(F)
Play a musical instrument	NSS*	.003(F)	NSS*	.001(F)
Work with poor people	NSS*	.01(F)	.001(F)	.001(F)
Look after small children	.001(F)	.001(F)	.001(F)	.001(F)
Serve people in a restaurant	.02(F)	.001(F)	.03(F)	.001(F)
Bake a cake	.001(F)	.001(F)	.01(F)	.001(F)

*NSS - Not statistically significant

(M) Male or (F) Female indicates higher enjoyment level.

tickets at a movie show, reading books, typing letters for someone, playing a musical instrument, working with poor people, looking after small children, serving people in a restaurant, and baking a cake.

Although both male and female students in the total sample adhered to the gender-stereotypes associated with the selected activities that elicited significant gender differences, junior and senior high females expressed significantly greater enjoyment than their male peers in certain male-typed activities (see Table 8). Junior high female students indicated significantly greater enjoyment than their male peers in being a school principal and painting a fence. Senior high female students expressed significantly greater enjoyment than their male peers in operating on a sick person. However, male students at all three educational levels did not indicate significant enjoyment of any female-typed activities.

In summary, all of the comparisons, to varying degrees, revealed significant differences in male and female students' level of enjoyment of certain types of gender-stereotyped activities. Approximately three-quarters of the activities elicited significant gender differences among the total sample. Generally speaking, the activities that elicited gender differences were consistent with the gender stereotypes. Using the number of significantly different activities by gender as a basis for comparison, junior high students appear to be more stereotyped than

upper elementary and senior high students. Moreover, junior high and senior high females were more likely than their male peers to enjoy activities that are are non-congruent with the gender stereotypes traditionally associated with these activities.

4.2 Are there differences among upper elementary, junior high, and senior high students' levels of enjoyment of certain gender-stereotyped activities?

Tables 9 and 10 (refer to Appendix XI for the respective percentages for Table 10) summarize the data on educational level differences in students' enjoyment of certain gender-stereotyped activities for the total sample, for male and female students at each educational level, respectively. Chi-square tests of independence for each of the activities at the .05 level revealed significant gender differences for 9, 8, and 7 of the 25 gender-stereotyped activities for the total sample, male students, and female students at each educational level, respectively.

With reference to the total sample, upper elementary students expressed significantly greater enjoyment than junior and senior high students in painting a fence, baking a cake, using a computer, being a school principal, and serving people in a restaurant. At the junior high level, students expressed significantly greater enjoyment than

Table 9

Attractiveness of Gender-stereotyped Activities by Educational Level for Total Sample

Activity	Level of significance of the educational level difference	Percent of Upper Elementary/ Junior High/Senior High Students		
		Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	.001	65/40/31	27/32/55	8/28/14
Cut grass around the house	NSS*	60/58/59	34/39/33	6/3/8
Paint a fence	.01	56/68/61	24/28/35	20/4/4
Design rocket ships	NSS*	57/51/58	25/35/26	18/14/16
Watch for forest fires	NSS*	64/53/51	28/38/41	8/9/8
Build furniture	NSS*	65/67/49	29/28/39	6/5/12
Operate on a sick person	NSS*	70/67/59	22/24/21	8/9/20
Repair a toaster	.006	82/77/53	14/21/33	4/2/14
Be a school principal	.001	38/33/57	26/48/37	36/19/6
Fix a car	NSS*	57/47/32	17/30/28	26/23/40
Use a computer	.006	6/21/14	28/32/52	66/47/34
Work by yourself	NSS*	24/21/14	39/42/59	37/37/27
Tell other workers what to do	NSS*	26/19/12	26/42/51	48/39/37
Look after parks and gardens	NSS*	43/49/42	35/40/42	22/11/16
Drive a tractor	.003	65/52/33	12/32/47	23/16/20
Activities Stereotyed as Female				
Deliver messages for business	NSS*	55/40/58	35/49/34	10/11/8
Sell things in a store	NSS*	33/28/33	45/56/55	22/16/12
Take tickets at a movie show	NSS*	41/47/53	39/39/39	20/14/8
Read books	NSS*	26/43/39	30/20/37	44/37/24
Type letters for someone	NSS*	35/46/57	47/34/29	18/20/14
Play a musical instrument	NSS*	31/33/24	42/41/43	27/26/33
Work with poor people	.02	44/62/39	44/26/32	12/12/29
Look after small children	NSS*	28/40/43	40/30/31	32/30/26
Serve people in a restaurant	.001	24/48/67	41/33/31	35/19/2
Bake a cake	.02	38/55/31	34/26/53	28/19/16

*NSS - Not statistically significant

Table 10

Attractiveness of Gender-stereotyped Activities by Educational Level for Each Gender

Activity	Males	Females
Activities Stereotyped as Male		
Pilot a plane	.006(J.H.)	NSS*
Cut grass around a house	NSS*	NSS*
Paint a fence	.04(U.E.)	.02(J.H.)
Design rocket ships	NSS*	NSS*
Watch for forest fires	NSS*	NSS*
Build furniture	NSS*	NSS*
Operate on a sick person	NSS*	.01(S.H.)
Repair a toaster	.05(S.H.)	NSS*
Be a school principal	.004(U.E.)	.04(J.H.)
Fix a car	NSS*	.03(S.H.)
Use a computer	NSS*	.01(U.E.)
Work by yourself	NSS*	NSS*
Tell other workers what to do	NSS*	NSS*
Look after parks and gardens	NSS*	NSS*
Drive a tractor	.002(S.H.)	NSS*
Activities Stereotyped as Female		
Sell things in a store	NSS*	NSS*
Deliver messages for business	NSS*	NSS*
Take tickets at a movie show	NSS*	NSS*
Read books	NSS*	NSS*
Type letters for someone	.04(U.E.)	NSS*
Play a musical instrument	NSS*	NSS*
Work with poor people	NSS*	.003(S.H.)
Look after small children	NSS*	NSS*
Serve people in a restaurant	.009(U.E.)	.004(U.E.)
Bake a cake	.07(S.H.)	NSS*

*NSS - Not statistically significant

(U.E.) Upper Elementary, (J.H.) Junior High, or (S.H.) Senior High indicates higher enjoyment level.

upper elementary and senior high students in piloting a plane. Senior high students expressed significantly greater enjoyment than upper elementary and junior high students in working with poor people, repairing a toaster, and driving a tractor .

For each gender, there were educational level differences in the level of enjoyment of certain gender-stereotypes activities (see Table 10). Among the males, upper elementary students expressed significantly greater enjoyment than junior and senior high students in painting a fence, typing letters for someone, being a school principal, and serving people in a restaurant. Junior high males expressed significantly greater enjoyment than upper elementary and senior high males in piloting a plane. Senior high males expressed significantly greater enjoyment than upper elementary and junior high males in repairing a toaster, baking a cake, and driving a tractor.

Among the females, upper elementary students expressed significantly greater enjoyment than junior and senior high students in using a computer and serving people in a restaurant. Junior high females indicated significantly greater enjoyment than upper elementary and senior high females in painting a fence and being a school principal. Senior high females expressed significantly greater enjoyment than upper elementary and junior high females in operating on a sick person, fixing a car, and working with poor people.

To summarize, there were differences among upper elementary, junior high, and senior high students' level of enjoyment of approximately one-third of the gender-stereotyped activities. This finding was also consistent among each gender at the three educational levels.

4.3 With respect to males' and females' enjoyment of certain gender-stereotyped activities, how do the findings at the upper elementary level compare with the findings of Labour Canada?

While the chi-square test of independence ($p \leq .05$) on the percentages revealed significant gender differences among the Labour Canada elementary students for 21 of the 24 gender-stereotyped activities, only 10 of the 24 (drive a tractor excluded) gender-stereotyped activities in the present study proved to have significant differences among upper elementary students (see Table 8). (Refer to Appendix XII for the respective percentages.)

All upper elementary gender differences which are significant are in the same direction as the results of the Labour Canada Study. Thus, piloting a plane, designing rocket ships, building furniture, and fixing a car are gender-typed as male whereas selling things in a store,

reading books, typing letters for someone, looking after small children, serving people in a restaurant, and baking a cake are gender-typed as female.

Furthermore, Labour Canada found significant gender differences in students' enjoyment of some activities that were not found in this study. Males expressed significantly greater enjoyment than females of cutting grass around a house, watching for forest fires, repairing a toaster, using a computer, working by yourself, and telling other workers what to do. Significantly more females than males expressed greater enjoyment of taking tickets at a movie show, operating on a sick person, being a school principal, playing a musical instrument, and working with poor people.

With reference to the number of gender-stereotyped activities that elicited gender differences, the upper elementary students in the present study appear to be less stereotyped than the elementary students in the Labour Canada Study in their enjoyment of gender-stereotyped activities.

5. Future Gender Composition of Selected Occupations

5.1 Are there differences between male and female students' expectancy of the gender composition of selected occupations?

Tables 11 and 12 (refer to Appendix XIII for the respective percentages for Table 12) summarize the data on male and female students' expectancy of the gender composition (males only, females only, or both males and females) of selected occupations for the total sample, and by each educational level, respectively. Chi-square tests of independence for each of the activities at the .05 level revealed significant gender differences for 8, 2, 1, and 5 of the 21 selected occupations for the total sample, the upper elementary students, the junior high students, and the senior high students, respectively.

With reference to the traditionally male occupations that elicited significant gender differences among the total sample (doctor, store owner, bank manager, police officer, and high school teacher), upper elementary students (police officer), junior high students (doctor), and senior high students (store owner, bank manager, school principal, and high school teacher), the following response pattern emerges: significantly more females than males expected both males and females to fill these occupations, and significantly more males than females expected that only males would occupy these same occupations. Moreover, nil to a very small percentage of both male and female students expected that these occupations would be filled by females only.

With reference to the moderate occupation (grocery clerk) that elicited significant gender differences among

Table 11

Expectancy of the Gender Composition of Occupations by Gender for Total Sample

Occupation	Level of significance of the gender difference	Percent of female/ male students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	40/52	3/1	57/47
Doctor	.01	19/39	-/1	81/60
Store Owner	.04	7/21	3/3	90/76
Bank Manager	.001	13/39	-/4	87/57
School Principal	NSS*	36/54	1/1	63/45
Police Officer	.05	29/47	4/3	67/50
Forest Ranger	NSS*	65/77	1/3	34/20
Dentist	NSS*	33/37	1/3	66/60
Teacher (high school)	.002	9/23	1/8	90/69
Minister/Priest	NSS*	87/82	1/1	12/17
Farmer	NSS*	62/78	3/-	35/22
Moderate Occupations				
Sales Person	NSS*	11/18	6/7	83/75
Grocery Clerk	.01	-/5	23/36	77/59
Traditionally Female Occupations				
Secretary	NSS*	1/1	79/82	20/17
Nurse	NSS*	1/3	72/79	27/18
Teacher (elementary)	NSS*	1/4	25/38	74/58
Librarian	NSS*	2/3	65/70	33/27
Dancer	.02	-/4	29/43	71/53
Model	NSS*	-/2	54/49	46/49
Social Worker	.02	4/10	28/41	68/49
Guidance Counsellor	NSS*	-/-	50/50	50/50

*NSS - Not statistically significant

Table 12

Expectancy of the Gender Composition of Occupations by Gender for Each Educational Level

Occupation	Upper Elementary	Junior High	Senior High	Labour Canada Study
Traditionally Male Occupations				
Astronaut	NSS*	NSS*	NSS*	NSS*
Doctor	NSS*	.04(F)	NSS*	.001(F)
Store Owner	NSS*	NSS*	.03(F)	.001(F)
Bank Manager	NSS*	NSS*	.003(F)	.05(F)
School Principal	NSS*	NSS*	.002(F)	.01(F)
Police Officer	.01(F)	NSS*	NSS*	.05(F)
Forest Ranger	NSS*	NSS*	NSS*	NSS*
Dentist	NSS*	NSS*	NSS*	.01(F)
Teacher (high school)	NSS*	NSS*	.03(F)	.001(F)
Minister/Priest	NSS*	NSS*	NSS*	NSS*
Farmer	NSS*	NSS*	NSS*	-
Moderate Occupations				
Sales Person	NSS*	NSS*	NSS*	NSS*
Grocery Clerk	NSS*	NSS*	.04(F)	.01(F)
Traditionally Female Occupations				
Secretary	NSS*	NSS*	NSS*	.05(M)
Nurse	NSS*	NSS*	NSS*	NSS*
Teacher (elementary)	NSS*	NSS*	NSS*	NSS*
Librarian	NSS*	NSS*	NSS*	NSS*
Dancer	.005(F)	NSS*	NSS*	NSS*
Model	NSS*	NSS*	NSS*	NSS*
Social Worker	NSS*	NSS*	NSS*	.05(F)
Guidance Counsellor	NSS*	NSS*	NSS*	-

*NSS - Not statistically significant.

(M) Male or (F) Female indicates higher expectation about both males and females

the total sample and among senior high students, the following response pattern emerges: significantly more females than males expected both males and females to fill this occupation, and significantly more males than females expected females only to occupy this position in the labour force. Moreover, nil to a very small percentage of both male and female students expected this occupation to be filled by males only.

With reference to the traditionally female occupations that elicited significant gender differences among the total sample (dancer and social worker) and among upper elementary students (dancer), the following response pattern emerges: significantly more females than males expected both males and females to occupy these positions, and significantly more males expected females only to work in these areas. Moreover, nil to only a very small percentage of both male and female students expected these occupations to be filled by males only.

There were some occupations in all comparisons that elicited a low expectancy that both males and females would occupy these positions. A very low percentage of males and females expected to find both males and females in such female-typed occupations as secretary, nurse, and librarian. Furthermore, a very low percentage of males and females expected to find both males and females in such male-typed occupations as minister or priest, forest ranger, and farmer. Since the sample group has been exposed to only

female guidance counsellors, it is not surprising that neither male nor female students expect that the gender composition of prospective guidance counsellors will be comprised of males only. This testifies to the powerful influence of role models.

To summarize, the majority of occupations elicited similar gender expectancy response patterns from the male and female students in all comparisons. Among the total sample, approximately one-third of the selected occupations elicited significant gender differences in students' gender expectancy response patterns. Among students at each educational level, the number of selected occupations that elicited significant gender differences in students' gender expectancy response patterns varied but was consistently less than one-third. In all the comparisons, traditionally male occupations were more likely than traditionally female occupations to elicit gender differences in the students' expectancy response patterns. Females are significantly more likely than males to expect both males and females in traditionally male and female occupations. Moreover, a relatively large porportion of males and females expect to find both males and females working in the majority of occupations presented.

5.2 Are there differences among upper elementary, junior high, and senior high students' expectancy of the gender composition of selected occupations?

Tables 13 and 14 (refer to Appendix XIV for the respective percentages for Table 14) summarize the data on students' expectancy of the gender composition (males only, females only, both males and females) of selected occupations for the total sample, and for male and female students at each educational level respectively. Chi-square tests of independence for each of the activities at the .05 level revealed significant differences for 2, 0, and 1 of the 21 selected occupations for the total sample, male students, and female students at each of the three educational levels respectively.

Among all three comparisions there were only three occupations (store owner, elementary teacher, and librarian) that elicited significant educational level dfferences in students' gender expectancy of the selected occupations. Since a large number of tests of significance were conducted, it is plausible that the three significant educational level differences were due to chance. Thus, in general there is a lack of significant differences in students' expectancy of the gender composition of occupations across educational levels.

Table 13

Expectancy of the Gender Composition of Occupations by Educational Level

Occupation	Level of significance of the educational level difference	Percent of Upper elementary/ Junior High/Senior High Students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	41/44/53	4/2/-	55/54/47
Doctor	NSS*	33/32/22	-/-/2	67/68/76
Store Owner	.01	6/19/16	-/7/-	94/74/84
Bank Manager	NSS*	23/23/31	2/2/2	75/75/67
School Principal	NSS*	48/46/40	-/3/-	52/51/60
Police Officer	NSS*	31/39/42	4/5/-	65/56/58
Forest Ranger	NSS*	73/71/69	4/2/-	23/27/31
Dentist	NSS*	35/37/32	-/3/2	65/60/66
Teacher (high school)	NSS*	20/18/10	4/5/4	76/77/86
Minister/Priest	NSS*	85/82/86	2/2/-	13/16/14
Farmer	NSS*	78/72/61	2/-/2	20/28/37
Moderate Occupations				
Sales Person	NSS*	17/12/14	6/9/4	77/79/82
Grocery Clerk	NSS*	6/2/-	29/26/32	65/72/68
Traditionally Female Occupations				
Secretary	NSS*	2/-/2	80/81/80	18/19/18
Nurse	NSS*	2/3/-	88/70/69	10/27/31
Teacher (elementary)	.04	2/3/2	17/32/45	81/65/53
Librarian	NSS*	4/4/-	60/65/78	36/31/22
Dancer	NSS*	4/2/-	31/40/36	65/58/64
Model	NSS*	2/2/-	58/47/50	40/51/50
Social Worker	NSS*	10/9/2	21/36/45	69/55/53
Guidance Counsellor	NSS*	-/-/-	51/53/46	49/47/54

*NSS - Not statistically significant

Table 14

Expectancy of the Gender Composition of Occupations by Educational Level for Each Gender

Occupation	Males	Females
Traditionally Male Occupations		
Astronaut	NSS*	NSS*
Doctor	NSS*	NSS*
Store Owner	NSS*	NSS*
Bank Manager	NSS*	NSS*
School Principal	NSS*	NSS*
Police Officer	NSS*	NSS*
Forest Ranger	NSS*	NSS*
Dentist	NSS*	NSS*
Teacher (high school)	NSS*	NSS*
Minister/Priest	NSS*	NSS*
Farmer	NSS*	NSS*
Moderate Occupations		
Sales Person	NSS*	NSS*
Grocery Clerk	NSS*	NSS*
Traditionally Female Occupations		
Secretary	NSS*	NSS*
Nurse	NSS*	NSS*
Teacher (elementary)	NSS*	NSS*
Librarian	NSS*	.03(U.E.)
Dancer	NSS*	NSS*
Model	NSS*	NSS*
Social Worker	NSS*	NSS*
Guidance Counsellor	NSS*	NSS*

*NSS - Not statistically significant

(U.E.) Upper Elementary, (J.H.) Junior High, or (S.H.) Senior High indicates higher expectancy about both males and females.

5.3 With respect to male and female students' expectancy of the gender composition of selected occupations, how do the findings at the upper elementary level compare with the findings of Labour Canada?

A chi-square statistical test of independence ($p \leq .05$) identified significant gender differences among the elementary students in the Labour Canada Study for 10 of the 19 selected occupations. Only 2 of the 19 presented occupations (guidance counsellor and farmer excluded) elicited significant gender differences among the upper elementary students in the present study. (See Table 12.) (Refer to Appendix XII for the respective percentages.)

Only one occupation, police officer, elicited significant gender differences in both studies; females in both studies indicated a higher expectation than their male peers that both males and females would become police officers.

There were many fewer significant gender differences in gender expectancy of occupations in the present study than in the Labour Canada Study: male and female students in the present study had similar expectancy response patterns to the majority of occupations whereas the male and female students in the Labour Canada Study had discrepant

expectancy response patterns to approximately half of the occupations presented. Furthermore, there were differences between the two studies in the type of occupations that elicited significant gender differences. In the present study, significantly more females than males expected both males and females to be dancers. In the Labour Canada Study, significantly more females than males expected both males and females to be doctors, store owners, bank managers, school principals, dentists, high school teachers, grocery clerks, and social workers. Significantly more males than females in the Labour Canada Study expected both males and females to be secretaries.

CHAPTER V

SUMMARY AND CONCLUSIONS

This chapter provides a discussion of the results and their relation to the literature review conducted in Chapter II, recommendations for educators and parents, limitations of the study, and recommendations for future research.

A. Discussion of Results

Based on the analysis of data presented in Chapter IV, findings will be presented. A brief discussion, where applicable, about the comparison of the conclusions in this study to the findings of previous studies reviewed in Chapter II will ensue. Students' perception of gender roles is a replication of Baumgartner Papageorgiou's Study (1982); and traditionality of occupational choices, sources of occupational choices, attractiveness of selected activities, and gender composition of selected occupations are a replication of the Labour Canada Study (1986).

1. Students' Perceptions of Gender Roles

Employing a phenomenological analysis of the data resulted in the emergence of the twelve effects of gender role sterotyping identified in the Baumgartner Papageorgiou Study as themes or subthemes. Baumgartner Papageorgiou identified the following twelve effects: occupational options, value of a career, appearance as an asset, females

as sex objects, male-typed behavior, female-typed behavior, freedom versus restriction, domestic responsibilities, skills taught, development of interests and talents, differential treatment by teachers, and gender value.

In the present study, additional effects emerged in the form of themes and subthemes. Students' perceptions were often dichotomized on the basis of gender and students perceived the following emergent themes as being gender-related: personal characteristics (appearance, physical, personal attributes, cognitive, and affective), behavioral characteristics (general, activities, and interests), social aspects (relationships, differential treatment, home responsibilities, names, school subjects, and gender value), and occupational factors (gender-typing of occupations, no gender-typing of occupations, and other).

The findings of this study concur with Baumgartner Papageorgiou's conclusion that gender role stereotyping is still quite pervasive among schoolchildren and that gender role stereotyping can create damaging and restricting effects, particularly in the occupational domain. Nevertheless, the findings of the present study suggest that inroads are being made in eradicating gender role stereotypes, particularly at the senior high level. For example, some senior high students appeared to be quite conscious of the need for gender equality and appeared to be

quite liberal in their acceptance of both males and females in some traditionally gender-typed occupations.

Although the females tended to be more profuse and detailed than the males in their written perceptions, some cogent findings emerged. Students' comments often centered around personal characteristics; both males and females at all three educational levels perceived that females are much more concerned about their appearance than males. Furthermore, both male and female students perceived that females are often judged solely on their appearance. With reference to behavioral characteristics, aggressive and rambunctious behavior was associated with being male whereas passive and compliant behavior was associated with being female.

Within the social domain, males are perceived as enjoying more freedom and fewer restrictions than females, particularly in the area of sports. Students perceived differential gender expectations about home and childcare responsibilities: males are expected to attend to outdoor or agrarian chores whereas females are expected to attend to household or childcare duties. On the basis of gender, students also perceived differential treatment from teachers, parents, family members, employers, and others. In particular, they felt that teachers favor female students and that parents are less restrictive in their treatment of males. Both male and female students indicated that they valued being male whereas only females indicated that they

valued being female. Furthermore, more students intimated that they valued being male rather than being female.

With reference to the occupational domain, gender role stereotyping still appears to dominate the occupational aspirations of the majority of male and female students. Generally speaking, females were perceived as having restricted occupational options whereas males were perceived as having more or better occupational opportunities. Males were also perceived as having more opportunity than females to secure high-paying and prestigious jobs.

There were students at all three educational levels who gender-typed occupations. This is in agreement with previous studies (Kendel & Gage, 1983; Schlossberg & Goodman, 1972; Tibbetz, 1975; Barnhart, 1983) that have shown that schoolchildren perceive most occupations as being the role of either males or females.

Females were more likely than males to name and categorize occupations, particularly male dominated occupations, as being open to both males and females. Furthermore, as both males and females progress through the education system, they are more likely to name and classify occupations as being appropriate for both males and females.

2. Traditionality of Occupational Choices

a. Gender

Significant gender differences were found in the traditionality of students' occupational choices for the total sample and this finding was consistent at the upper elementary, junior high, and senior high levels: the majority of males aspired to traditionally male occupations whereas the majority of females aspired toward traditionally female occupations. A cogent finding of this study is that the majority of female students are still aspiring toward occupations that are often low paying, lacking in prestige, and limited in terms of advancement. Furthermore, the majority of females still tended to cluster their choices around person-oriented occupations, ignoring science-oriented occupations.

The foregoing is consistent with previous research that indicated that students state occupational aspirations that adhere to traditional gender role stereotypes (Gregg & Dobson, 1980; Looft, 1971a, 1971b; Beuf, 1974; O'Connor, 1980; Canale & Dunlap, 1987; Richards, 1979) and that popular occupational choices among females tend to be person-oriented (Kendel & Gage, 1983; Marini & Greenberger, 1978; Weller, Shlomi, & Zimont, 1976; Tibbetts, 1975; Vincenzi, 1977; Iglitzin, 1972; Beuf, 1974; Siegel, 1973).

Female students were more likely than their male peers to nominate nontraditional occupations. In fact, the males

in this study did not chose any nontraditional occupations whereas approximately one-third of the females aspired to nontraditional occupations. The females that aspired to traditionally male occupations tended to select occupations that are highly paid, prestigious, and require an extensive period of post-secondary education. Previous researchers (Kriedberg, Butcher, & White, 1978; Richards, 1979; Nummenmaa, Nummenmaa, & Vanhalakka-Ruoho, 1987) have likewise found females to be more likely to nominate nontraditional occupations than their male peers.

Females nominated a greater number of different occupations than males. Males restricted their occupational choices to traditionally male occupations whereas females broadened their range of occupations by selecting occupations from both traditionally female and traditionally male occupations. This finding is substantiated by Gregg and Dobson's (1980) finding that elementary females stated more occupational interests than their male peers. However, this finding conflicts with previous research (Kendel & Gage, 1983; Marine & Greenberger, 1978; Looft, 1971a, 1971b; Sinclair, Crouch, & Miller, 1977; Schlossberg & Goodman, 1972; Hewitt, 1975; Siegel, 1973; Tremaine, Schau, & Busch, 1982; Beuf, 1974; Franken, 1983) that found females to be more restrictive than males in their occupational choices. However, this finding concurs with studies (Kriedberg, Bucher, & White, 1978; Franken, 1983; Garrison, 1979) that have shown that inroads are being made in eradicating the

gender differences in the number of occupations nominated by schoolchildren.

b. Educational Level

There were no significant educational level differences in the traditionality of students' occupational choices of the total sample and this finding was consistent for each gender. The lack of educational level differences in students' traditionality of occupational choices is not supported by previous research conducted by Franken (1983) who found, with increasing age, that students become more liberal in their occupational choices. Furthermore, the lack of educational level differences among females is inconsistent with previous research (Hageman & Gladding, 1983; Ehrhardt, Ince, & Myer-Bahlburg, 1982; Umstot) that found that with increasing age, females were found to be more liberal in their attitudes toward occupational aspirations. It is also inconsistent with some studies (Marini, 1978; Canale & Dunlap, 1987) that found that females' liberality toward their occupational aspirations rises consistently during the elementary grades, peaks during junior high, and regresses during high school. Furthermore, no support was found for the various theories (Garrett, Ein, & Tremaine, 1977; Ehrhardt, Ince, & Meyer-Bahlburg, 1981) formulated about the liberality found among students in late childhood and early adolescence.

c. Comparison with the Labour Canada Study

There was no significant difference between the traditionality of occupational choices of the upper elementary students in this study and the elementary students in the Labour Canada Study. Both studies revealed a similar pattern in the traditionality of students' occupational choices: significantly more males than females aspired toward traditionally male occupations whereas significantly more females than males aspired to traditionally female occupations.

3. Sources of Occupational Choices

a. Gender

There was no significant gender difference in the sources of students' occupational choices for the total sample and this finding was consistent across the upper elementary, junior high, and senior high levels. However, it is interesting that no male student identified as a source of their occupational aspirations either altruistic motives or friend(s) and that no female students attributed their occupational choices to job opportunities or extent of remuneration. Popular sources of influence among both male and female students were nature of work, relatives, personal experience or specific ability, and media influence.

b. Educational Level

There was a significant educational level difference in students' sources of occupational choices for the total sample, as follows:

a. Upper Elementary - media influence and exposure to an occupation or visit to a work site.

b. Junior High - personal experience of specific ability.

c. Senior High - personal experience or specific ability, altruistic motives, and career exploration. Upper elementary students' occupational choices are influenced to a greater extent by the media than junior and senior high students. Moreover, it is promising that a relatively high proportion of junior and senior high students take into consideration their personal experience or specific ability in deciding upon an occupation to pursue.

Educational level exerts a differential effect on males' and females' sources of occupation aspirations: females' sources of occupational aspirations are significantly influenced by their educational level whereas males' sources of occupational choices are not significantly influenced by their educational level. Among the females at all three educational levels, senior high students are influenced to a greater extent than upper elementary and junior high students by altruistic motivies, friend(s), and career exploration.

c. Comparison with the Labour Canada Study

There was a significant difference between the sources of occupational choices among the upper elementary students in this study and the elementary students in the Labour Canada Study. In particular, the upper elementary students in the present study appear to be more influenced by media and less influenced by personal experience or specific ability than the elementary students in the Labour Canada Study.

4. Attractiveness of Selected Activities

a) Gender

There were significant gender differences in the total sample's level of enjoyment of approximately two-thirds of the gender-stereotyped activities presented: their level of enjoyment for the activities that elicited gender differences was consistent with gender stereotypes. This was also confirmed to varying degrees across upper elementary, junior high, and senior high levels.

Junior high students appear to be more stereotyped in their enjoyment of selected gender-stereotyped activities than upper elementary and senior high students. Moreover, junior high and senior high females were more likely than their male peers to enjoy activities that are non-congruent with the gender stereotypes associated with these activities. For example, senior high females expressed

significantly greater interest than their male peers in operating on a sick person. This activity involves a long period of post-secondary education and is traditionally gender-typed as male.

b. Educational Level

There were significant educational level differences for approximately one-third of the gender-stereotyped activities for the total sample, male students, and female students. For example, senior high students (both males and females) expressed significantly greater enjoyment than upper elementary and junior high students in working with poor people, repairing a toaster, and driving a tractor.

c. Comparison with the Labour Canada Study

There were less gender-stereotyped activities in the present study (N = 10) than in the Labour Canada Study (N = 21) that elicited significant gender differences; therefore, it appears that the upper elementary students in the present study are less stereotyped than the elementary students in the Labour Canada Study in their enjoyment of the activities presented to them. The activities that elicited gender differences in the present study were in the same direction as the results of the Labour Canada Study. For example, students in both studies gender-typed designing rocket ships as being male.

The difference between the two studies might best be explained on the basis of background: all the students in the present study reside in an agrarian community whereas the students in the Labour Canada Study came from diverse backgrounds (rural, urban, and suburban). An agrarian community often dictates working cooperatively as a family to operate a farm. In this particular community, it is common for women to operate and repair farm equipment, and tend to the farm animals. These students have also had the benefit of computer instruction and a rigorous music program that might account for the lack of gender differences in their enjoyment of playing a musical instrument and of using a computer. Moreover, more than three years have elapsed since the data was collected for Labour Canada Study, and it is plausible that students have become more liberal in their enjoyment of gender-stereotyped activities.

5. Gender Composition of Selected Occupations

a) Gender

The majority of occupations presented elicited a similar gender expectancy response pattern from both male and female students in the total sample and in each educational level. However, there were significant gender differences in the total sample's expectancy of the gender composition of approximately one-third of the occupations presented. Among students at each educational level, gender

differences varied but emerged to a lesser extent than the gender differences among the total sample. The foregoing is consistent with Gregg and Dobson's (1980) finding that for the majority of occupations presented there were no significant differences between male and female students' assignment of occupational roles to either males or females.

Females were significantly more likely than males to expect to find both males and females in both traditionally male and female occupations. This finding supports previous research (Shepard & Hess, 1975; Iglitzin, 1972) findings that females are more liberal in their occupational expectations than their male peers. However, this finding also contradicts previous research (Shepelak, Ogden, & Tobin-Bennett, 1984; Aneshensel & Rosen, 1980) findings that both males and females were found to restrict males from engaging in traditionally female occupations and restrict females from engaging in traditionally male occupations.

It is promising that a relatively large proportion of both males and females expect to find both males and females working in the selected occupations. This is consistent with Gregg & Dobson's (1980) finding that children accepted both males and females in a variety of occupations. However, this finding does contradict previous research (Schlossberg & Goodman, 1972; Tibbetz, 1975; Barnhart, 1983; Shepelak, Ogden, & Tobin-Bennett, 1984) that reported that both males and females perceive most occupations as being

the role of one gender or the other according to traditional stereotyping.

b. Educational Level

There was a lack of significant differences in students' expectancy of the gender composition of occupations for the total sample, for male students, and for female students. There was only one study (Scheresky, 1977) reviewed that reported that educational level does not exert any influence upon the liberality of students' occupational expectations; this study was conducted by Scheresky (1977). Other researchers (Shepard & Hess, 1975; Garrett, Ein, & Tremaine, 1977; Shepard & Hesss, 1975; Umstot, 1980; O'Keefe & Hyde, 1982;) found that with increasing age, students develop more liberal occupational expectations whereas still other researchers (Gettys & Cann, 1981; Hageman & Gladding, 1983) report that with increasing age, students develop less liberal attitudes toward occupational expectations. Neither of these findings of liberality were substantiated by this present study.

c. Comparison with the Labour Canada Study

There were fewer occupations (N = 2) in the present study that elicited significant gender differences in students' gender expectancy response patterns than in the Labour Canada Study (N = 10). There was only one

occupation, police officer, that elicited significant gender differences in both studies.

The differences between the two studies might best be explained in terms of the limited population that this present study was based upon versus the diverse population that was included in the Labour Canada Study. The subjects in the present study have been exposed to the same types of role models because their community is relatively small and most people are acquainted with one another whereas subjects in an urban or sub-urban center might experience differential exposure to role models. For example, most of the subjects in the present study have been exposed to both the female and the male bank managers in the community whereas urban students might not know whether their parents' bank manager is male or female.

B. Summary of Results

1. Students' Perceptions of Gender Roles

It appears that the majority of students at all three educational levels still perceive males and females in traditional roles. This was evident in the comments both males and females made about appearance, behavior, social relationships, and occupational choices. Students often gender-typed occupations and this was reflected in their occupational choices. Some students commented on the differential treatment they receive on the basis of gender

from parents and teachers. Furthermore, parents appear to assign different home responsibilities to children on the basis of gender. Gender-role stereotyping still appears to dominate the occupational aspirations of schoolchildren.

2. Occupational Aspirations and Expectations

Table 15 presents a summary by gender and by educational level of the significant differences in students' traditionality of occupational choices, sources of occupational choices, enjoyment of selected activities, and gender expectancy about selected occupations. Furthermore, a comparison of the results of the Labour Canada Study with the present study results are also summarized on Table 15.

a. Gender

Gender significantly influenced students' traditionality of occupational choices across all three educational levels: the majority of males aspired to traditionally male occupations and the majority of females aspired toward traditionally female occupations. There were also significant gender differences found in students' enjoyment of selected gender-typed activities: males tended to enjoy male-typed activities and females tended to enjoy female-typed activities. Moreover, females were more likely than males to enjoy activities that are non-congruent with the gender stereotypes associated with these activities. These gender differences in students' enjoyment of selected

Table 15
Summary of Significant Differences

	Significant Differences
A. Traditionality of Occupational Choices	
1. Gender	
a) Total Sample	Yes
b) Upper Elementary	Yes
c) Junior High	Yes
d) Senior High	Yes
2. Educational Level	
a) Total Sample	No
b) Males	No
c) Females	No
3. Comparison with Labour Canada Study	No
B. Sources of Occupational Choices	
1. Gender	
a) Total Sample	No
b) Upper Elementary	No
c) Junior High	No
d) Senior High	No
2. Educational Level	
a) Total Sample	Yes
b) Males	No
c) Females	Yes
3. Comparison with Labour Canada Study	Yes
C. Attractiveness of Selected Activities	
1. Gender	
a) Total Sample	18/25
b) Upper Elementary	11/25
c) Junior High	18/25
d) Senior High	12/25
2. Educational Level	
a) Total Sample	9/25
b) Males	8/25
c) Females	7/25
3. Comparison with Labour Canada	
a) Labour Canada	21/24
b) Present Study: Upper Elementary	10/24

D. Future Gender Composition of Selected Occupations

1. Gender	
a) Total Sample	8/21
b) Upper Elementary	2/21
c) Junior High	1/21
d) Senior High	5/21
2. Educational Level	
a) Total Sample	2/21
b) Males	-/21
c) Females	1/21
3. Comparison with Labour Canada	
a) Labour Canada	10/19
b) Present Study	2/19

activities were evident to varying degrees at each educational level: junior high students appeared to be more stereotyped in their enjoyment of selected activities than upper elementary and senior high students. There were some significant gender differences in students' expectancy of the gender composition of selected occupations for the threeeducational levels. Females were more likely than males to expect both males and females in traditionally male and female occupations.

In contrast to the findings of the traditionality of occupational choices, the attractiveness of selected activities, and the expectancy of the gender composition, gender did not significantly influence students' sources of occupational choices across all three educational levels. In general, males and females identified similar sources of their occupational aspirations.

b. Educational Level

There were significant educational level differences in students' sources of occupational choices for the total sample and for female students; however, this was not the case with male students. Upper elementary students are influenced to greater extent by media whereas a relatively high proportion of junior and senior high students are influenced by their personal experience or specific ability; this effect was also found among female students but not among male students. Students' enjoyment of selected

activities was influenced to a lesser extent by educational level than by gender; nevertheless, there were approximatley one-third of the activities that elicited significant educational level differences for all three comparisons. For example, junior high students expressed greater enjoyment than upper elementary and senior high students in piloting a plane.

In contrast to the findings for sources of occupational choices and enjoyment of selected activities, educational level did not have a significant impact on the traditionality of students' occupational choices. Across all three educational levels, the majority of males aspired toward traditionally male occupations and the majority of females aspired toward traditionally female occupations. With reference to students' gender expectancy of selected occupations, the few significant educational level differences that emerged in students' gender expectancy of selected occupations might be due to chance; therefore, it appears unlikely that educational level influences students' gender expectancy of occupations.

c. Comparison with the Labour Canada Study

There was no significant difference between students' traditionality of occupational choices in the Labour Canada Study and in the present study. In both studies, significantly more males than females aspired toward traditionally male occupations and significantly more

females than males aspired toward traditionally female occupations.

However, there was a significant difference between the sources of students' occupational choices in the Labour Canada Study and in the present study. Upper elementary students' occupational choices in the present study are much more influenced by television than the elementary students in the Labour Canada Study.

For the enjoyment of gender-stereotyped activities and the gender expectancy of selected occupations there were some significant gender differences that emerged in the present study; however, there were considerably fewer significant gender differences in the present study than in the Labour Canada Study.

C. Recommendations for Educators and Parents

A cogent finding of this study is that gender plays a significant role in influencing students' occupational aspirations and expectations, often to the detriment of females. Moreover, gender role stereotyping is still quite pervasive among all students, particularly among upper elementary and junior high students. Therefore, the recommendations presented will attempt to focus on assisting students to narrow the gender gap, and to encourage students to understand and be supportive of the changes that are occurring among women. The recommendations will also

incorporate findings about the impact educational level exerts on the sources of students' occupational aspirations.

1. For School Counsellors and Teachers

1. Become cognizant of their own personal stereotypes about males and females and make a concerted effort to monitor their biases and take corrective action.

2. Invite students to identify the gender stereotypes they hold about the roles of men and women and discuss the limiting and debilitating effects such stereotypes create. An enlightening activity is to ask students to respond to Baumgartner Papageorgiou's question, "If you woke up tomorrow and discovered that you were a (boy/girl), how would your life be different?"

3. Avoid gender-typing of occupations and promote andyrogynous views of occupations.

4. Review curriculum materials and career information so that these do not promote gender-stereotyping of occupations.

5. Encourage both senior high males and females, who have the academic potential, to keep all of their occupational options open by enrolling in English 30, Social Studies 30, Mathematics 30, Mathematics 31, Biology 30, Chemistry 30, Physics 30, and a language other than English. By completing the foregoing courses, prospective students can

meet post-secondary admission requirements to all faculties and programs offered in Alberta.

6. Encourage students to broaden their occupational awareness. For example, males should consider occupations that are people-oriented and females should consider occupations that involve science and mathematics.

7. Highlight the variety of advantages - salary, advancement opportunity, benefits, work satisfaction - offered by traditionally male occupations.

8. Encourage students, at all educational levels, to aspire toward occupations that are commensurate with their abilities, interests, aptitudes, values, and beliefs rather than selecting occupations that adhere to traditional gender roles.

9. Structure opportunities for junior and senior high students to explore occupations from at least three major occupational fields.

10. Tolerate nontraditional classroom behavior for males and females. For example, teachers should tolerate altruistic interests in males and assertiveness in females.

11. Employ career counselling materials that expand rather than restrict males' and females' occupational choices and that permit students to make informed occupational decisions.

12. Expose male and female students to the variety of occupational alternatives available to them, beginning at the elementary level. In particular, students should be exposed to nontraditional occupations.

13. Expose both males and females, at all educational levels, to nontraditional occupations and role models through interviews, Career Days, job shadowing, biographical readings (e.g. Marie Curie, Indira Ghandi), and field trips.

14. Discuss with male and female students the contemporary role changes that have taken place for women. These discussions should be supplemented with provincial statistics published by the Alberta Status of Women Action Committee that highlight women's economic situation in Canada.

15. Encourage and assist females to realistically prepare for an ongoing career rather than visualizing their future in traditional and romanticized terms. Unemployment, divorce, lone-parent families, poverty, and death of a spouse all need to be considered.

16. Encourage and assist males to select a lifestyle that allows them to share home and childcare responsibilities with their prospective wives.

17. Conduct discussions, particularly at the upper elementary level, about how unrealistically the media portrays male and female roles.

18. Assist male and female students to identify barriers to pursuing nontraditional occupations and how to overcome these barriers. Discussions with nontraditional role models would prove to be an asset in this area.

19. Provide support and encouragement for students that plan to pursue nontraditional occupations.

20. Discuss with high school females how they intend to deal with the fact that the most productive years in the labour force are the same as a woman's natural reproductive cycle.

21. Conduct discussions with high school males and females on the challenge and opportunity of the dual-career marriage. Supplement discussions with panel presentations in which successful and competent men and women explain how they have integrated both occupational and family roles.

22. Expose both males and females to male and female role models who value females' occupational pursuits and who value males' involvement in homemaking and childcare responsibilities (DiSabatino, 1976).

23. Conduct parent workshops designed to explain the damaging and limiting effects gender-stereotyping can have on their children's occupational aspirations.

2. For Parents

1. Identify their own gender role conditioning and examine its impact on their children (Gregg & Dobson, 1980).

2. Become knowledgeable of their own attitudes about their children pursuing nontraditional occupations, the changing roles of men and women, the issues their children face in selecting a nontraditional occupation, and how they can assist their children to keep all occupational options open (Kammer, 1985).

3. Provide the opportunity for their children to discuss occupational alternatives with relatives or with personal contacts who are in nontraditional occupations.

4. Encourage their children, if academically capable, to keep all of their occupational options open by completing all the advanced academic courses (e.g. mathematics and science).

5. Offer support and encouragement to their children who pursue nontraditional occupations.

6. Become sensitized to sexist portrayal of males and females in television shows and advertisements. Parents should discuss with their children, particularly elementary students, the stereotyping that exists on television and help their children to view themselves positively in nontraditional roles.

6. Become tolerant of nontraditional behavior for males and females. For example, parents should tolerate altruistic interests in males and assertiveness in females.

7. Avoid differential treatment of children on the basis of gender.

8. Provide the opportunity for their children to learn skills that would prove valuable for both males and females (Baumgartner Papageoriou, 1982).

D. Limitations

The methodology employed in this study has four major limitations; these include the small sample size, the limited population, the lack of verification in the qualitative analysis, and the use of the 1981 Census data rather than the more recent data.

1. The results of this study were based on 160 students from grades 4-12; therefore, the sample size per educational level was small and might have affected the statistical interpretation but not the descriptive interpretation. With reference to the chi-square statistical analysis that was conducted on the data, in many cases there were cells with an expected frequency of less than five. Therefore, the results of the chi-square statistical analysis must be interpreted with caution. Furthermore, since a large number of tests of significance were conducted, the probability

exists that significant differences were found in some cases due to chance.

2. The students who were surveyed reside in the County of Lamont - an agrarian based community. Such a sample area can not be considered typical of either all Alberta students or of rural Alberta students; generalizations based on such a limited population area must be regarded with a degree of skepticism.

3. The phenomenological method employed to analyze students' narrative responses to the Baumgartner Papageorgiou question by the investigator did not validate the formulated meanings with the students to determine whether these meanings accurately captured the essence of their experiences.

4. The 1986 Canadian census data which is now the most recent available was not used for the study because of unavailability at the time of analysis; therefore, the traditionality of students' occupational aspirations was determined by assessment of the 1981 Canadian census data. Consequently, the coding of the traditionality of students' occupational aspirations which was based upon the proportion of males and females employed in the labour force might have differed had the most recent statistics been utilized.

E. Recommendations for Future Research

There remains a need for future research to be conducted in the area of schoolchildren's occupational aspirations and expectations. Some suggestions include:

1. Compare urban and rural students' traditionality of occupational aspirations and their sources of occupational aspirations.

2. Conduct a longitudinal study to determine if students' traditionality of occupational choices and sources of occupational aspirations change as they progress through the education system.

3. Construct and implement a program designed to eradicate gender-typing of occupations and evaluate the effectiveness of such a program.

4. Evaluate the effect that parental occupational aspirations for their children have in students' traditionality of occupational aspirations.

REFERENCES

Adams, G. R., & Hicken, M. (1984). Historical-cultural change and expression of vocational preference and expectation by preschool and elementary school age children. Family Relations, 33(2), 301-308.

Alberta Education (1986). Junior high school curriculum guide: Health and personal life skills (ISBN No. 0-920794-17-3). Edmonton: Alberta Curriculum Branch.

Alberta Status of Women Action Committe. Women & Poverty (Available from Alberta Status of Women Action Committe, Box 1573, Edmonton, Alberta).

Aneshensel C. S., & Rosen, B. C. (1980). Domestic roles and sex differences in occupational expectations. Journal of Marriage and The Family, 42(1), 121-131.

Barnett, R. C. (1975). Sex differences and age trends in occupational preference and occupational prestige. Journal of Counseling Psychology, 22(1), 35-38.

Barnhart, R. S. (1983). Children's sextyped views of traditional occupational roles. The School Counselor, 31(2), 167-170.

Baron, R. A. & Byrne, D. (1984). Social psychology Understanding human interaction. Toronto: Allyn and Bacon.

Baumgartner Papageorgiou, A. (1982). My daddy might have loved me": Students' perceptions of differences between male and being female. Denver: Institute for Equality in Education, University of Colorado at Denver.

Beuf, A. (1974). Doctor, lawyer, household drudge. Journal of Communication, 24(2), 142-145.

Bloch, M. N. (1987). The development of sex differences in young children's activities at home: the effect of the social context. Sex Roles, 16(5/6), 279-301.

Block, J., Denker, E. R., & Tittle, C. K. (1981). Perceived influences on career choices of eleventh graders: sex, SES, and ethnic group comparisons. Sex Roles, 7(9), 895-904.

Bogie, D. W. (1976). Occupational aspiration-expectation discrepancies among high school seniors. The Vocational Guidance Quarterly, 24(3), 250-255.

Brooks-Gunn, J., & Schempp Matthews, W. (1979). He & she How children develop their sex-role identity. Englewood Cliffs, NJ: Prentice-Hall.

Burlin, F. D. (1976). Sex-role stereotyping: occupational aspirations of female high school students. The School Counselor 24(2), 102-108.

Canale, R. & Dunlap, L. (1987). Factors influencing career aspirations of primary and secondary grade students (Report No. CG -020-338). Arlington, VA: Paper presented at the Annual Meeting of the Eastern Psychological Association. (ERIC Document Reproduction Service No. ED 288 164)

Cann, A. & Palmer, C. (1986). Children's assumptions about the generalizability of sex-typed abilities. Sex Roles, 15(9/10), 551-558.

Card, J. J., Steel, L., & Abeles, R. P. (1980). Sex differences in realization of individual potential for achievement. Journal of Vocational Behavior, 17(1), 1-21.

Celkis, R. (1981). Achievement motivation and the vocational development of adolescent women: a review and application of achievement motivation research to vocational development theory (Report No. CG-015-227). Ann Arbor, MI. (ERIC Document Reproduction Service No. ED 203 244)

Cramer, S. H., Wise, P. S., & Colburn, E. D. (1977). An evaluation of a treatment to expand the career perceptions of junior high school girls. The School Counselor, 25(2), 124-129.

Danziger, N. (1983). Sex-related differences in the aspirations of high school students. Sex Roles, 9(6), 683-695.

DiSabatino, M. (1976). Psychological factors inhibiting women's occupational asprations and vocational choices: implications for counseling. The Vocational Quidance Quarterly, 25(1), 43-49.

Dunne, F., Elliott, R. & Carlsen, W. S. (1981). Sex differences in the educational and occupational aspirations of rural youth. Journal of Vocational Behavior, 18(1), 56-66.

Ehrhardt, A. A., Ince, S. E., & Meyer-Bahlburg, H. F. L. (1981). Archives of Sexual Behavior, 10(3), 281-298.

Emerson, D. (1985-86). Counselling girls in nontraditional roles. Reviewed by C. Curtis. The Alberta Counsellor, 14(2), 24.

Fabes, R. A., & Laner, M. R. (1986). How the sexes perceive each other: advantages and disadvantages. Sex Roles, 15(3/4), 129-143.

Firefighter grad. (1988, September 30). The Edmonton Journal, p. B1.

Farmer, H. S. (1983). Career and homemaking plans for high school youth. Journal of Counseling Psychology, 30(1), 40-45.

Franken, M. W. (1983). Sex role expectations in children's vocational aspirations and perceptions of occupations. Psychology of Women Quarterly, 8(1), 59-68.

Garrett, C. S., Ein, P. L., & Tremaine, L. (1977). The development of gender stereotyping of adult occupations in elementary school children. Child Development, 48(2), 507-512.

Garrison, H. H. (1979). Gender differences in the career aspirations of recent cohorts of high school seniors. Social Problems, 27(2), 170-185.

Gettys, L. D., & Cann, A. (1981). Children's perceptions of occupational sex stereotypes. Sex Roles, 7(3), 301-308.

Gregg, C. H., & Dobson, K. (1980). Occupational sex role stereotyping and occupational interests in children. Elementary School Guidance & Counselling, 15(1), 66-75.

Greene, A. L., Sullivan, H. J., & Beyard-Tyler, K. (1982). Attitudinal effects of the use of role models in information about sex-typed careers. Journal of Educational Psychology, 74(3), 393-398.

Hageman, M. B., & Gladding, S. T. (1983). The art of career exploration: occupational sex-role stereotyping among elementary school children. Elementary School Guidance & Counselling, 17(4), 280-287.

Harris, S. R. (1974). Sex typing in girls' career choices: a challenge to counselors. The Vocational Guidance Quarterly, 23(2), 128-133.

Hawley, P. (1972). Perceptions of male models of femininity related to career choice. Journal of Counseling Psychology, 19(4), 308-313.

Hesselbart, S. (1977). Women doctors win and male nurses lose. Sociology of Work and Occupations, 4(1), 49-60.

Hewitt, L. S. (1975). Age and sex differences in the vocational aspirations of elementary school children. The Journal of Social Psychology, 96, 173-177.

Hughes, C. M., Martinek, S. A. & Fitzgerald, L. F. (1985). Sex role attitudes and career choices: the role of children's self-esteem. Elementary School Guidance & Counseling, 20(1), 57-66.

Iglitzin, L. B. (1972). A child's-eye view of sex roles. Today's Education, 61, 23-25.

Kammer, P. P. (1985). Career and life-style expectations of rural eighth-grade students. The School Counselor, 33(1), 18-25.

Jacobs, C. & Eaton, C. (1972). Sexism in the elementary school. Today's Education, 61, 20-22.

Kenkel, W. F., & Gage, B. A. (1983). The restricted and gender-typed occupational aspirations of young women: can they be modified? Family Relations, 32(1), 129-138.

Koziey, P. W., Zingle, H. W., & Allen, S. (1979). The realization of post-high school aspirations. The School Guidance Worker, 35(2), 7-11.

Kriedberg, G., Butcher, A. L., & White, K. M. (1978). Vocational role choice in second- and sixth-grade children. Sex Roles, 4(2), 175-181.

Labour Canada. (1986). When I grow up... Career expectations and aspirations of Canadian schoolchildren (Cat. No. :L016-1528/86E). Minister of Labour, Government of Canada.

Leonard, G. E., Sather, G., Sheggrud, D., & Handel, L. (1973). Career guidance in the elementary school. Elementary School Guidance and Counseling, 7(4), 287-291.

Lewin, M., & Tragos, L. M. (1987). Has the feminist movement influenced adolescent sex role attitudes? A reassessment after a Quarter Century. Sex Roles, 16(3/4), 125-135.

Looft, W. R. (1971a). Vocational aspirations or second-grade girls. Psychological Reports, 28, 241-242.

Looft, W. R. (1971b). Sex differences in the expression of vocational aspirations by elementary school children. Developmental Psychology, 5(2), 366.

Lueptow, L. B. (1981). Sex-typing and change in the occupational choices of high school seniors 1964-1975. Sociology of Education, 54(1), 16-24.

Mackie, M. (1983). Exploring gender relations. Toronto: Butterworths.

Marini, M. M. (1978). Sex differences in the determination of adolescent aspirations: a review of research. Sex Roles, 4(5), 723-750.

Marini, M. M., & Greenberger, E. (1978). Sex differences in occupational aspirations and expectations. Sociology of work and occupations, 5(2), 147-176.

Mastronardi, A. (1986). Outdated images: A review of women TV ads. Journal of the Religious Studies and Moral Education Council, 7(2), 14-17.

McGregor, A. J. (1984). Exposing sexist stereotypes. The ATA Magazine, 64(2), 12-15.

Nummenmaa, A. R., Nummenmaa, T., & Vanhalakka-Ruoho, M. (1987). Sex-atypical occupational aspirations in Finland. Scandinavian Journal of Educational Research, 31(3), 99-111.

O'Connor, P. A. (1980). The role of sex-stereotyping in children's occupational selections (Report No. C6-014-513). Hartford, CT: Paper presented at the Annual Meeting of the Eastern Psychological Association. (ERIC Document Reproduction Service No. ED 189 488)

O'Keefe E. S. C., & Hyde, J. S. (1983). The development of occupational sex-role stereotypes: the effects of gender stability and age. Sex Roles, 9(4), 481-492.

Oliver, L. W. (1975). Counselling implications of recent research on women. The Personnel and Guidance Journal, 53(6), 430-437.

Patterson, L. E., Klarreich, S., & Patterson J. B. (1980). Bringing sex stereotypes into focus. The School Counsellor, 27(5), 368-376.

Powell, R. R., & Garcia, J. (1988). What research says ... about stereotypes. Science and Children, 25(5), 21-23.

Richards, D. S. (1979). Secondary students' view on occupational sex stereotyping (Report No. CG-013-757). Crawfordsville, IN: Indiana State Board of Vocational and Technical Education. (ERIC Document Reproduction Service No. ED 176 156)

Salamon, E.D., & Robinson, B. W. (Eds.). (1987). Gender roles. Toronto: Methuen.

Scheresky, R. F. (1977). Occupational roles are sex-typed by six- to ten-year-old children. Psychology in the schools, 14(2), 220-224.

Schlesinger, R. (1988). Towards more appropriate roles for women. The Canadian School Executive, 7(9), 12-14.

Schlossberg, N. K., & Goodman, J. (1972). A woman's place: children's sex stereotyping of occupations. The Vocational Guidance Quarterly, 20(4), 266-270.

Sharon, M. E. (1989). Peer support training as affective education: a phenomenological analysis. University of Alberta, Edmonton.

Siegel, C. L. F. (1973). Sex differences in the occupational choices of second graders. Journal of Vocational Behavior, 3, 15-19.

Shepard, W. O., & Hess, D. T. (1975). Attitudes in four age groups toward sex role division in adult occupations and activities. Journal of Vocational Behavior, 6, 27-39.

Shepelak, N. J., Ogden, D., & Tobin-Bennett, D. (1984). The influence of gender labels on the sex typing of imaginary occupations. Sex Roles, 11(11/12), 983-996.

Sheilds, B. (1983). Equality: Is it a dream or nightmare for educators? Runner, 21(1), 11-14.

Silverman, L. K. (1986). What happens to the gifted girl? In C. J. Maker's (Ed.), Critical issues in gifted education (pp. 43-89). Rockville, MD: Aspen.

Sinclair, K. E., Crouch, B., & Miller, J. (1977). Occupational choices of Syndey teenagers: relationships with sex, social class, grade level and parent expectations. The Australian Journal of Education, 21(1), 41-54.

Teglasi, H. (1981). Children's choices of and value judgments about sex-typed toys and occupations. Journal of Vocational Behavior, 18, 184-195.

Thompson, C. L., & Parker, J. L. (1971). Fifth graders view the work world scene. Elementary School Guidance and Counseling, 5(4), 281-287.

Tibbetts, S. L. (1975). Sex-role stereotyping in the lower grades: part of the solution. Journal of Vocational Behavior, 6, 255-261.

Tremaine, L. S., Schau, C. G., & Busch, J. W. (1982) Children's occupational sex-typing. Sex Roles, 8(7), 691-710.

Tully, J. C., Stephan, C., & Chance, B. J. (1976). The status and sex-typed dimensions of occupational aspirations in young adolescents. Social Science Quarterly, 56(4), 638-649.

Umstot, M. E. (1980). Occupational sex-role liberality of third-, fifth, and seventh-grade females. Sex Roles, 6(4), 611-618.

Valle, R. S., & King, M. (Eds.). (1978). Alternatives for psychology. New York: Oxford University Press.

Vincenzi, H. (1977). Minimizing occupational stereotypes. The Vocational Guidance Quarterly, 25(3), 265-268.

Vondracek, S. I. & Kirchner, E. P. (1974). Vocational development in early childhood: an explanation of young children's expressions of vocational aspirations. Journal of Vocational Behavior, 5, 251-260.

Wanga, L. (1981). Sex-role stereotypes. Reporter, 6(6), 34.

Weitz, S. (1977). Sex roles. New York: Oxford University Press.

Weller, L., Shlomi, A., & Zimont, G. (1976). Birth order, sex, and occupational interst. Journal of Vocational Behavior, 8, 45-50.

Wolf, D. (1979). Socialization of girls (Report No. RC-010-709). Washington, DC: Extension Service. (ERIC Document Reproduction Service No. ED 158 944)

Wynn, S. (1987). Educating girls and young women: sex-role stereotyping and the different socialization of girls and boys. Journal of Home Economics Education, 26(1), 10-12).

APPENDIX I

Labour Canada Questionnaire

STUDY OF EARLY CAREER INTERESTS

Student No. ___ Boy ___ Girl ___ Age ___ Grade ___

1(a) What do you want to be when you grow up? _____

_____

(b) How did you get this idea? _____

_____

2. What would be your second choice? _____

_____

3. What other jobs do you think you might like to do when you are older?

_____

_____

_____

4. There are a number of activities listed below. Put a check mark in the space that tells best how you think you would like to do these things when you are grown up.

		Like a lot	Like a little	Would not like to do
(a)	Pilot a plane	___	___	___
(b)	Sell things in a store	___	___	___
(c)	Cut grass around a house	___	___	___
(d)	Paint a fence	___	___	___
(e)	Design rocket ships	___	___	___
(f)	Deliver messages for business	___	___	___
(g)	Watch for forest fires	___	___	___
(h)	Take tickets at a movie show	___	___	___
(i)	Build furniture	___	___	___
(j)	Read books	___	___	___
(k)	Operate on a sick person	___	___	___
(l)	Repair a toaster	___	___	___
(m)	Type letters for someone	___	___	___
(n)	Be a school principal	___	___	___
(o)	Play a musical instrument	___	___	___
(p)	Fix a car	___	___	___
(q)	Work with poor people	___	___	___
(r)	Use a computer	___	___	___
(s)	Work by yourself	___	___	___
(t)	Look after small children	___	___	___
(u)	Serve people in a restaurant	___	___	___
(v)	Tell other workers what to do	___	___	___
(w)	Bake a cake	___	___	___
(x)	Look after parks and gardens	___	___	___

5. Look at the jobs listed below. Then think of the boys and girls in your class or that are your age. What jobs do you think these children will have when they are grown up? Put a check mark in the space that best tells what these children could be when they grow up.

		Girls	Boys	Both Girls & Boys
(a)	Astronaut	____	____	____
(b)	Doctor	____	____	____
(c)	Store Owner	____	____	____
(d)	Secretary	____	____	____
(e)	Nurse	____	____	____
(f)	Bank Manager	____	____	____
(g)	Teacher (elementary-school)	____	____	____
(h)	School Principal	____	____	____
(i)	Sales Person	____	____	____
(j)	Police Officer	____	____	____
(k)	Librarian	____	____	____
(l)	Forest Ranger	____	____	____
(m)	Dancer	____	____	____
(n)	Dentist	____	____	____
(o)	Teacher (high-school)	____	____	____
(p)	Model	____	____	____
(q)	Grocery Clerk	____	____	____
(r)	Social Worker	____	____	____
(s)	Minister/Rabbi/Priest	____	____	____

6. Where were your born? Canada: Yes ____ No ____

If not Canada, where? _____

7. What language did you learn to speak first? _____

8. Your mother: Does she live with you? _____
Does she work outside the home? _____
If so, what kind of work does she do? _____
In what country was she born? _____

9. Your father: Does he live with you? _____
Does he work outside the home? _____
If so, what kind of work does he do? _____
In what country was he born? _____

10. How many older brothers do you have? ____
How many older sisters do you have? ____
How many younger brothers do you have? ____
How many younger sisters do you have? ____

Thank you for your help.

Reproduced with permission of the Minister of Supply and Services Canada.

APPENDIX II

Questionnaire (Form 1 and 2)

Form 1: Male Students

/__ __ __/__/__ __/
(For office use only)

Study of the Occupational Expectations and Aspirations of Elementary and Secondary Students

Participation in the study is strictly on a voluntary basis and all answers will be confidential. You are not required to identify yourself anywhere on the survey. You are asked to respond to the questions as honestly as possible.

7. What do you want to be when you grow up?

_____

8. How did you get this idea?_____

_____

There are a number of activities listed below. Put a check mark in the space which best describes how you feel about doing these things when you are grown up.

	(1) Like a lot	(2) Like a little	(3) Would not like to do
9. Pilot a plane	_____	_____	_____
10. Sell things in a store	_____	_____	_____
11. Cut grass around a house	_____	_____	_____
12. Paint a fence	_____	_____	_____
13. Design rocket ships	_____	_____	_____
14. Deliver messages for business	_____	_____	_____
15. Watch for forest fires	_____	_____	_____
16. Take tickets at a movie show	_____	_____	_____
17. Build furniture	_____	_____	_____
18. Read books	_____	_____	_____
19. Operate on a sick person	_____	_____	_____
20 Repair a toaster	_____	_____	_____
21. Type letters for someone	_____	_____	_____
22. Be a school principal	_____	_____	_____
23. Play a musical instrument	_____	_____	_____
24. Fix a car	_____	_____	_____
25. Work with poor people	_____	_____	_____
26. Use a computer	_____	_____	_____
27. Work by yourself	_____	_____	_____
28. Look after small children	_____	_____	_____
29. Serve people in a restaurant	_____	_____	_____
30. Tell other workers what to do	_____	_____	_____
31. Bake a cake	_____	_____	_____
32. Look after parks and gardens	_____	_____	_____
33. Drive a tractor	_____	_____	_____

Look af the jobs listed below. Then think of the boys and girls in your class or that are your age. What jobs do you think these children will have when they are grown up? Put a check mark in the space that best tells what these children could be when they grow up.

	(1) Girls	(2) Boys	(3) Both Girls & Boys
34. Astronaut			
35. Doctor			
36. Store Owner			
37. Secretary			
38. Nurse			
39. Bank Manager			
40. Teacher (elementary)			
41. School Principal			
42. Sales Person			
43. Police Officer			
44. Librarian			
45. Forest Ranger			
46. Dancer			
47. Dentist			
48. Teacher (high school)			
49. Model			
50. Grocery Clerk			
51. Social Worker			
52. Minister/Priest			
53. Guidance Counsellor			
54. Farmer			

55. If you woke up tomorrow and discovered that you were a girl, how would your life be different?

Thank you very much for your participation and cooperation!

Form 2: Female Students

/__ __ __/__/__ __/
(For office use only)

Study of the Occupational Expectations and Aspirations of Elementary and Secondary Students

Participation in the study is strictly on a voluntary basis and all answers will be confidential. You are not required to identify yourself anywhere on the survey. You are asked to respond to the questions as honestly as possible.

7. What do you want to be when you grow up?

_____

8. How did you get this idea?_____

_____

There are a number of activities listed below. Put a check mark in the space which best describes how you feel about doing these things when you are grown up.

	(1) Like a lot	(2) Like a little	(3) Would not like to do
9. Pilot a plane	_____	_____	_____
10. Sell things in a store	_____	_____	_____
11. Cut grass around a house	_____	_____	_____
12. Paint a fence	_____	_____	_____
13. Design rocket ships	_____	_____	_____
14. Deliver messages for business	_____	_____	_____
15. Watch for forest fires	_____	_____	_____
16. Take tickets at a movie show	_____	_____	_____
17. Build furniture	_____	_____	_____
18. Read books	_____	_____	_____
19. Operate on a sick person	_____	_____	_____
20 Repair a toaster	_____	_____	_____
21. Type letters for someone	_____	_____	_____
22. Be a school principal	_____	_____	_____
23. Play a musical instrument	_____	_____	_____
24. Fix a car	_____	_____	_____
25. Work with poor people	_____	_____	_____
26. Use a computer	_____	_____	_____
27. Work by yourself	_____	_____	_____
28. Look after small children	_____	_____	_____
29. Serve people in a restaurant	_____	_____	_____
30. Tell other workers what to do	_____	_____	_____
31. Bake a cake	_____	_____	_____
32. Look after parks and gardens	_____	_____	_____
33. Drive a tractor	_____	_____	_____

Look af the jobs listed below. Then think of the boys and girls in your class or that are your age. What jobs do you think these children will have when they are grown up? Put a check mark in the space that best tells what these children could be when they grow up.

	(1) Girls	(2) Boys	(3) Both Girls & Boys
34. Astronaut			
35. Doctor			
36. Store Owner			
37. Secretary			
38. Nurse			
39. Bank Manager			
40. Teacher (elementary)			
41. School Principal			
42. Sales Person			
43. Police Officer			
44. Librarian			
45. Forest Ranger			
46. Dancer			
47. Dentist			
48. Teacher (high school)			
49. Model			
50. Grocery Clerk			
51. Social Worker			
52. Minister/Priest			
53. Guidance Counsellor			
54. Farmer			

55. If you woke up tomorrow and discovered that you were a boy, how would your life be different?

Thank you very much for your participation and cooperation!

APPENDIX III

Permission to Reproduce Excerpts from the Labour Canada Study

Labour Canada
Ottawa, Ontario
K1A 0J2

Travail Canada
Ottawa (Ontario)
K1A0J2

February 6th, 1989

Ms. Doreen Lupaschuk
#48 Yellowstone Gardens
10453 - 20 Avenue
Edmonton T6J 5A1

Dear Ms. Lupaschuk :

This is to acknowledge the receipt of your request of permission to reproduce a number of excerpts from Career Expectations and Aspirations of Canadian Schoolchildren, namely Table I (p. 40), Table II (p. 42), Table III (p. 44), also p. 64 & 65, and Appendix B (p. 69-74).

This will confirm that you have been granted non-exclusive Canadian rights to reproduce the above materials for the purposes of your thesis requirements.

We understand that we will be given full credit of the source, along with a statement that it is "reproduced with permission of the Minister of Supply and Services Canada ".

We wish you success in your academic endeavours.

Yours truly,

Jean Chabot
Head, Editorial, Design and
Publishinc Services

Tel. : 0 (819) 953-0174

Canada

APPENDIX IV

Letter of Request to Superintendent and Board of Education

University of Alberta
Edmonton
Canada T6G 2G5

Department of Educational Psychology
Faculty of Education
6-102 Education North, Telephone (403) 432-5245

December 5th, 1988

Mr. R. Wiznura,
Superintendent of Schools
County of Lamont No. 30
Box 150
LAMONT, Alberta
T0B 2R0

Dear Mr. Wiznura:

Re: Request for approval to administer a survey to students (grades 4 - 12) at Andrew School

In partial fulfillment of the requirements for the Master's of Education Degree in the Department of Educational Psychology at the University of Alberta, I must complete and defend a thesis. I am very interested in the area of vocational counselling and I am presently conducting research in the identification of factors that influence the career expectations and aspirations of elementary (grades 4 - 6), junior high, and high school students. My research project has received approval by the University of Alberta's Department of Educational Psychology's Ethics Review Committee.

I am seeking the approval and support of you and the Lamont County Board of Education in this endeavor. If approval is granted, I will follow these steps:

1. Inform the Principal of Andrew School of the survey and its purpose.
2. Gain the cooperation of the Principal and teachers of Andrew School.
3. Request by letter in December, 1988 the consent of parent/guardian of the aforementioned students to participate in the completion of the enclosed survey.
4. Administer the survey in January, 1989 to the students whose parents have given consent.

I have attached a copy of the letter that would be forwarded to the parents along with a copy of the Parent/Guardian Consent Form.

.../2

I invite and welcome any comments or suggestions that you might have with respect to the enclosed letter to the parents and the consent form.

Furthermore, please inform the Board of Education that I would be willing to share with them my findings, conclusions, and possible recommendations. In addition, I am amenable to disseminating appropriate information to personnel in the school system if the Board deems it useful.

If you have any questions or concerns, please contact me at 435 - 0509. My thesis supervisor is Dr. Carolyn Yewchuk and she can be reached at 432 - 3738.

Your assistance and cooperation has been greatly appreciated in the past and I look forward to your continued support in the future.

Respectfully yours,

Doreen Lupaschuk

Doreen Lupaschuk

dsl/Encl. (3)

APPENDIX V

Letter of Approval from Superintendent
and Board of Education

County of Lamont No. 30

OFFICE OF THE SUPERINTENDENT
OF SCHOOLS

P.O. Box 150
LAMONT, ALBERTA
T0B 2R0

TELEPHONE
895-2231 998-0429

December 23, 1988

Miss Doreen Lupaschuk,
48 10453 - 20 Avenue,
Edmonton, Alberta.
T6J 5A1

Dear Doreen:

Allow me to confirm in writing permissions earlier communicated to you by telephone.

The Board, at its December 13, 1988 regular meeting approved the following resolution:

> **"That Miss Doreen Lupaschuk be authorized to administer the necessary survey to Grade 4-12 Andrew School students as partial fulfillment of the requirements for the Master of Education degree."**

I wish you success in your studies and a happy holiday season.

Sincerely,

R. A. Wiznura,
Superintendent of Schools.

RAW:md

APPENDIX VI

Cover Letter to Parents/Guardians

University of Alberta
Edmonton
Canada T6G 2G5

Department of Educational Psychology
Faculty of Education
6-102 Education North, Telephone (403) 492-5245

December 14th, 1988

Dear Parents or Guardians:

Re: Request for Parent/Guardian Consent -
Student Participation in Survey

As a graduate student at the University of Alberta, I am presently completing my Master's of Education Degree in the Department of Educational Psychology. I am presently conducting research in the identification of factors that influence the career expectations and aspirations of elementary (grades 4 - 6), junior high, and high school students.

This project is jointly supported by the University of Alberta and by the County of Lamont Board of Education. Furthermore, Mr. R. Wiznura, Superintendent of Schools, and Mr. M. Stewart, Principal at Andrew School, have given me their support and cooperation in this matter. The intent of this letter is to inform the parents of the study and to request parental consent to administer the survey to their child/children.

The survey relates to the factors that influence the career expectations and aspirations of students. I will administer this survey at Andrew School during the regular school day which will involve the maximum time of one hour. The students will not be required to identify themselves anywhere on the survey and all answers will be confidential. The survey does not involve any questions of a personal nature.

In order to conduct the study, I am requesting your assistance in granting permission for your child/children to participate in this study. Please return the attached Parent/Guardian Consent Form to your child's homeroom teacher **on or before December 21st, 1988.**

The information gathered from this survey will be of assistance in expanding our knowledge in the aforementioned area and will provide needed direction for school counsellors in providing effective and appropriate career counselling services.

.../2

For further information concerning this survey, please contact me at 435 - 0509. My supervisor is Dr. Carolyn Yewchuk and she can be reached at 432 - 3738.

I extend my sincere appreciation for your anticipated cooperation in this matter.

Yours sincerely,

D. Lupaschuk

Doreen Lupaschuk,
Graduate Student - University of Alberta

C. Yewchuk

Dr. Carolyn Yewchuk,
Supervisor

/dsl
Encl. (1)

APPENDIX VII

Parent/Guardian Consent Form

Study on Career Expectations and Aspirations of Students

PARENT/GUARDIAN CONSENT FORM

I, the undersigned, hereby

(please check one) [ ] consent

[ ] do not consent

to have my child/children, who are listed below, complete the Career Expectations and Aspirations of Students survey which will be conducted at Andrew School after the Christmas break.

Name(s) of Student(s)	Grade(s)
_____	_____
_____	_____
_____	_____
_____	_____

_____ _____

Date Signature of Parent/Guardian

Please return this completed form **on or before Wednesday, December 21st, 1988** to the homeroom teacher of one of your children.

Thank you for your prompt attention to this request.

APPENDIX VIII

Verbatim Written Statements, Formulated Meaning, and Identification of Themes

VERBATIM WRITTEN STATEMENTS, FORMULATED MEANING, AND IDENTIFICATION OF THEMES

Verbatim Statements	Formulated Meaning	Theme
I. Upper Elementary Students (Grades 4 - 6)		
A. Female Students		
(1) I would have to go to 183the washroom standing up.	Physical anatomy would change washroom procedures.	Toileting
(2) I would play with tractors.	Boys play with different toys than girls. Boys play with tractors whereas girls do not.	Different toys
(3) I would like wrestling.	Boys enjoy activities that are aggressive and physical in nature.	Interest in wrestling
(4) I would not be able to be a vet.	Only females can become veterinarians.	Gender-typing: female vets
(5) I would know Bryce better.	Boys are closer to other boys than to girls.	Gender composition of friends
(6) I would not wear dresses and skirts. I would wear pants and shorts.	Girls dress in "feminine" attire whereas boys dress in "masculine" attire.	Clothing
(7) I would not have long hair, I could not wear earrings and wouldn't go to the bathroom the same.	Boys do not wear their hair in a "feminine" manner nor do they wear jewellry that is generally considered to be "feminine". Changes in anatomy would dictate changes in toileting practices.	Hair length No feminine jewellry Toileting
(8) I would not have long hair or nice clothes.	Boys do not wear their hair in a "feminine" manner nor wear "feminine" clothes.	Hair length Clothing
(9) I would have to change my clothes.	Boys wear different clothes than girls.	Clothing

(10) I would also have to change the job (singer) I want to be.	It is more suitable for a female to be a singer.	Gender-typing: female singers
(11) I would have to buy some boys' toys.	Boys do not play with girls' toys.	Different toys
(12) Also change my friends.	Gender influences one's circle of friends.	Gender composition of friends
(13) I would have to sell my toys.	Boys and girls do not play with the same kind of toys.	Different toys
(14) I would not have long hair, I could not braid my hair or do anything with it.	Boys wear their hair short. Girls attempt to improve their appearance by coiffing.	Hair length Less coiffing of hair
(15) I would not wear a dress.	Boys do not wear "feminine" clothing.	Clothing
(16) I would do harder work.	Boys do more physically demanding work than girls.	More physically demanding chores
(17) I would not have any earrings.	Boys do not wear "feminine" jewellry.	No feminine jewellry
(18) I would have to get different clothes.	Boys wear different clothes than girls.	Clothing
(19) My name would have to be changed.	Names are gender-typed.	First name
(20) I would have to cut my hair.	Boys wear their hair short.	Hair length
(21) You would definitely need a new wardrobe.	Boys and girls wear different types of clothing.	Clothing
(22) Your whole body would be different.	Boys and girls differ in their anatomy.	Anatomy
(23) Just think, wearing boys' underwear!!	Anatomy dictates wearing appropriate underwear.	Anatomy

(24) You couldn't wear make-up.	Girls wear make-up and boys do not. Girls are more concerned about enhancing their appearance.	No make-up
(25) But you'd have a few more friends because boys usually stay together in very large groups.	In contrast to girls, boys do not form small cliques.	More friends
(26) Your work and lockers would be 50 times messier!	Boys are messier than girls.	Messy
(27) It would be different because I would have to wear a suit to weddings or funerals.	Boys and girls wear different types of clothing to special occasions.	Clothing
(28) I would have short hair and I wouldn't wear an earring.	Boys wear their hair short. Boys do not wear "feminine" jewellry.	Hair length No feminine jewellry
(29) I would like girls instead of boys.	Boys are attracted "romantically" to girls.	Romantic attraction
(30) I would go to the boys' washroom instead of the girls' washroom.	Gender differences in anatomy dictate different toileting practices.	Toileting
(31) I would think that hair stuff and earrings are stupid.	Boys do not need to bother with accessories that enhance their attractiveness.	Less coiffing of hair No feminine jewellry
(32) I would play hockey and I'd be better in gym.	Boys participate in hockey whereas girls do not. Boys are better than girls in physical activities.	Hockey Excel in physical activities
(33) I would think that dresses are funny.	Boys do not wear "feminine" clothing.	Clothing
(34) I would dance with girls instead of boys.	It is deemed socially appropriate to dance with members of the other gender.	Dance partners

(35) I wouldn't be a nurse.	Only females can be nurses.	Gender-typing: female nurses
(36) I would have to ge a whole new wardrobe.	Boys have different wardrobes than girls.	Clothing
(37) I would lose all my girl friends.	Boys are friends only with other males and they are not friends with females.	Gender composition of friends
(38) I can't stand wrestling.	Being "male" is associated with enjoying sports that are aggressive and physical.	Interest in wrestling
(39) I would need a new wardrobe.	Boys have different wardrobes than girls.	Clothing
(40) My body parts would really change.	Boys and girls differ in their anatomy.	Anatomy
(41) I wouldn't wear make-up or earrings.	Boys, in contrast to girls, are less concerned with enhancing their appearance.	No make-up No feminine jewellry
(42) I would play more sports.	Boys are involved in a wider-range of sports.	Wider-range of sports
(43) I would like model cars and trucks instead of dolls and stuff.	Boys and girls like different kinds of toys.	Different toys
(44) My appearance would change a lot.	Males and females differ in appearance.	Anatomy
(45) I would have shorter hair.	Boys wear their hair shorter than girls do.	Hair length
(46) I wouldn't wear rings and necklaces.	Girls are more interested in adorning themselves with jewellry.	No feminine jewellry
(47) It would mean going out with a different sex.	Boys and girls date members of the opposite gender.	Dating
(48) It would mean different parts of a body.	Males and females differ in their anatomy.	Anatomy

(49) I might have to change my job but what it I like it?	Pressure to aspire to a "masculine" occupation would be experienced; however, this might be contrary to one's interests.	Pressure to adhere to gender typing of occupations
(50) That might mean going back to college.	Males need a post-secondary education whereas females do not. Girls are not confident in their ability to succeed at the post-secondary level.	Pursue post-secondary education
(51) I would have a different shape.	Males and females differ in their physical shape.	Anatomy
(52) I would act differently.	Boys and girls differ in their behavior.	Act different
(53) I would have to wear different clothes.	Boys wear different clothes than girls.	Clothing
(54) I would be a doctor.	Only males can be doctors.	Gender-typing: male doctors
(55) I would be an astronaut.	Only males can be astronauts.	Gender-typing: male astronauts
(56) I'll have different attitudes.	Boys and girls differ in the attitudes they have.	Attitudes
(57) I'd play with different toys.	Boys and girls play with different toys.	Different toys
(58) Play different games.	Boys and girls play different games.	Different games
(59) Do different things.	Boys and girls have engage in different activities.	Different activities
(60) I'd watch different T.V. shows.	Boys watch different T.V. shows than girls.	Different T.V. shows
(61) I would have a messy room.	Boys are messy whereas girls are neat.	Messy

(62) I wouldn't be able to wear high-heels.	Boys, in contrast to girls, do not wear footwear designed to enhance their appearance.	Footwear
(63) I can't wear dresses.	Boys do not wear "feminine" clothing.	Clothing
(64) I would get in lots of trouble.	Boys get into more trouble than girls.	Get into trouble
(65) I can't read Nancy Drew books.	Boys and girls read different types of books.	Different books
(66) I'd draw different pictures.	Boys and girls draw different types of pictures.	Different pictures drawn
(67) I'd have to cut my hair.	Boys wear their hair short.	Hair length
(68) I can't wear make-up.	Boys, in contrast to girls, are not concerned with enhancing their appearance with cosmetics.	No make-up
(69) I'd get dirty more.	It is socially accepted for boys to get dirty.	Dirty
(70) I can't do the dishes.	Boys should not be doing dishes.	No dishes
(71) Wouldn't take long to do my hair.	Boys, in contrast to girls, do not spend much time on their appearance, particularly their hair.	Less concern about appearance
(72) I would hate myself for the rest of my life.	This girl would hate being a boy; she prefers being a girl.	Devalues male
(73) Would collect different collections.	Boys and girls differ in their interests.	Different collections
(74) Would have different hobbies.	Boys and girls differ in their hobbies.	Different hobbies
(75) Would do outside work instead of inside.	Boys should work outside the home while girls would work inside the home.	Outdoor chores
(76) Would do every sport instead of skating and gymnastics.	Boys are more likely to to participate in a wider range of sports than girls.	Wider range of sports

(77) I would like different foods.	Boys prefer different foods than girls.	Food preferences
(78) I would not like to shop for clothes and other things.	Boys, in contrast to girls, do not enjoy shopping.	Not shopping
(79) I would have short nails. I wouldn't have to paint my nails.	Boys, in contrast to girls, are not concerned with enhancing the appearance of their nails.	Less concern about appearance
(80) I would hang out with the boys.	Boys' friends are primarily male peers.	Gender composition of friends
(81) I would wear runners all of the time.	Boys wear comfortable footware whereas girls wear footwear that enhances their appearance.	Footwear
(82) I would have a different kind of swimsuit.	Gender differences in anatomy dictate changes in swimwear.	Anatomy
(83) I would have a messy desk.	Boys are messy.	Messy
(84) I would wear joggers alot.	Boys wear comfortable attire.	Clothing
(85) I wouldn't like to read.	Boys, in contrast to girls, do not enjoy reading.	Not reading
(86) I would wear a different watch.	Boys would not wear a "feminine" watch.	No feminine jewellry
(87) The way I act would be different.	Boys and girls behave differently.	Act different
(88) Some boys would try to beat you up.	Boys are exposed to aggressive behavior.	Fighting
(89) Play rough games like soccer, football, do boys' stuff.	Boys participate in more aggressive sports than girls.	Soccer Football
(90) Trying to get into trouble would not be my worst thing.	Boys get into more trouble than girls.	Get into trouble
(91) Having girls tell on you for something you didn't do.	Girls like to get the boys in trouble with the teacher.	Girls report on boys

(92) I would like to play hockey.	Boys like to play hockey.	Hockey
(93) I wouldn't be scared of mice and other bugs and creatures.	Boys are brave whereas girls are cowards.	Brave
(94) All my friends would be boys and we would always get in trouble because the girls would tell on us for something.	Boys' friends would be all male. Girls like to bring the boys' misbehavior to the attention of the teacher.	Gender composition of friends Girls report on boys
(95) The girls would be trying to kick us boys and they would chase us around school. And we would get into trouble, get sent to the office. Get detention.	Even though girls initiate a misbehavior involving boys, only the boys get punished by administration.	Treatment by teachers
(96) We would always be the one to get the wrong answers. And the girls would get everything all correct.	Gender determines whether a student's answer is judged to be correct or wrong	Treatment by teachers
(97) I wouldn't read the same books.	Boys and girls read different types of books.	Different books
(98) I wouldn't have the same favorite colours.	Boys and girls have different favorite	Colour preference
(99) I wouldn't want to be a boy.	This girl does not want to be a boy.	Devalues male
(100) At home I would get blamed for everything.	Boys are unjustly blamed by parents.	Treatment by parents
(101) I would have to play or participate in all our school activities in physical education.	Boys participate in a wider range of sport activities than girls.	Wider range of sports
(102) I would have to start teasing girls and try and fit in with the other boys.	Boys tease girls in attempt to be accepted by their male peers.	Annoy girls
(103) My teacher would treat me differently.	Teachers treat students differently on the basis of gender.	Treatment by teachers

(104) In a project I would have to mostly pick boys as partners instead of girls. I would have to give up all of my girlfriends.	Boys do not consider girls as friends.	Gender composition of friends
(105) I wouldn't have long hair to put in a braid or ponytail. I would have to give up my curling iron.	Boys are less concerned with enhancing their appearance, particularly coiffing their hair.	Hair length Less coiffing of hair
(106) I would have to start wearing gray, red, dark blue, more black, instead of powder blue, pink, yellow and light purple.	Boys and girls like different colours of clothing.	Colour preference
(107) I would have to drop out of figure skating to avoid being laughed at.	Boys are ridiculed for participating in "female" sports.	No figure skating
(108) I would have to kind of get in trouble to avoid being called names.	Boys are expected to get in trouble by their male peers.	Get into trouble
(109) I might like it.	This girl might enjoy being a boy.	Values male
(110) People would stare when I'm with my mom.	Boys are expected to spend more time with their father	Treatment by others
(111) I might like horrors.	Boys are not afraid of things that frighten girls.	Brave
(112) I would like girls in a different way.	Boys are interested in girls in a romantic way.	Romantic attraction
(113) I think I would have a different personality so people would act differently to me.	Boys have a different personality than girls. People treat boys and girls differently.	Personality Treatment by others
(114) I would talk different.	My voice would be deeper.	Anatomy
(115) I would also have to get a new name.	Names are gender-typed.	First name
(116) I wouldn't get to use rose bathpowder anymore.	Boys do not pamper their bodies with cosmetic products.	No make-up

(117) I wouldn't get to use my crimper on my hair.	Boys do not need to enhance their appearance by coiffing their hair.	Less coiffing of hair
(118) I'd have to cut wood in the summer.	Boys engage in physical and outdoor chores.	More physically demanding chores Outdoor chores
(119) I'd have to get in shape.	Boys need to be physically stronger than girls.	Strong
(120) I wouldn't get to babysit.	Boys do not care for young children; girls do.	No babysitting
(121) I would freak out. I wouldn't even get out of my room.	This girl would not enjoy being a boy; she prefers to remain a girl.	Devalues male
(122) I would have to wear "male" clothes.	Boys wear "masculine" clothing.	Clothing
(123) I'd have to change my friends to boys instead of girls because some people might call you names like Tinkerbell.	Boys can not be friends with girls because they will be ridiculed.	Gender composition of friends
(124) I would be better at things like sports.	Boys are better than girls at physical activities.	Excel in physical activities
(125) I would be taller and stronger.	Males have physical advantages.	Strong Tall
(126) But most important I would be nice to girls. That means no burping and I'd treat girls like they had feelings too and were not just things for boys to tease.	Boys are not nice to girls. Boys have little regard for girls' feelings.	Annoy girls
(127) My taste of food would change.	Boys and girls prefer different kinds of food.	Food preferences
(128) Also my occupation (horse rancher) would change.	Only females should be horse ranchers.	Gender-typed: female horse rancher

(129) My name couldn't stay the same as before.	Names are gender-typed.	First name
(130) I would like sports.	Boys are interested in sports.	Interest in sports
(131) I would shoot gophers.	Boys engage in more aggressive and violent behavior.	Shoot gophers
(132) I would get kicked.	Boys experience more aggressive behavior.	Fighting
(133) We would put any clothes on.	Boys do not need to be concerned about their appearance.	Clothing
(134) We would get into more trouble.	It is expected that boys get into more trouble than girls.	Get into trouble
(135) I would be interested in hockey and all other sorts of things.	Boys are interested in aggressive and physical sports like hockey. Boys are interested in a wider range of activities.	Hockey Wider range of activities
(136) I would not be in the house much.	Boys spend more time outside than in the house.	Outdoor activities

B. Male Students

(137) My hair would be longer.	Girls wear their hair long.	Hair length
(138) I would have different friends.	The friends one has are influenced by one's gender.	Different friends
(139) My parents would treat me different.	Parents treat sons and daughters differently.	Treatment by parents
(140) I would have different clothes.	Girls wear different clothes than boys.	Clothing
(141) Your friends would change.	Boys and girls have different friends.	Different friends
(142) I would play different things.	Boys and girls engage in different play activities.	Different play

(143) I would have a different voice.	Due to differences in anatomy, males have deeper voices than females.	Anatomy
(144) I would be something different when I grow up (truck driver).	Only males should be truck drivers.	Gender-typing male truck drivers
(145) I wouldn't be able to play hockey.	Girls should not play hockey.	No hockey
(146) I wouldn't be able to do my chores.	There are some chores that should only be done by a male.	Different chores
(147) I would be clumsy.	Girls are not as well-coordinated as boys.	Clumsy
(148) I would have to wear a dress.	Girls wear feminine types of clothing.	Clothing
(149) I would not be able to play hockey anymore.	Hockey is a "male" sport and should not be played by females.	No hockey
(150) I would have to wear different clothes.	Girls wear different clothes than boys do.	Clothing
(151) I would have long hair.	Girls wear their hair long.	Hair length
(152) I'm lucky I am a boy.	This boy feels lucky to be a boy.	Values male
(153) I would not want to play hockey.	Girls are not interested in playing hockey.	No hockey
(154) I would phone my friends.	Girls spend time talking on the telephone to their friends.	Talking on telephone
(155) I wouldn't be able to play hockey.	Girls do not play hockey.	No hockey
(156) I can't hang around with the boys.	Girls are not friends with boys.	Gender composition of friends
(157) I can't drive tractors and I can't go to the farm.	Girls can not operate tractors or other farm-related tasks.	No farm work

(158) I wouldn't be able to play hockey.	Girls do not play hockey.	No hockey
(159) I wouldn't be able to be a firefighter.	Only males can be firefighters.	Gender-typing: male firefighters
(160) I would be weak, stupid and silly.	Girls are physically weak and less intelligent.	Weak Less intelligent
(161) My favorite colour would be pink.	Girls like the colour pink.	Colour preference
(162) A sex change.	Boys and girls differ in anatomy.	Anatomy
(163) I would never play hockey again.	Girls should never play hockey.	No hockey
(164) I would need some new friends.	The friends one has are influenced by one's gender.	Different friends
(165) I would need new clothes.	Girls wear differernt clothes than boys do.	Clothing
(166) I would have new interests.	Boys and girls have different interests.	Different interests
(167) I would probably play different sports.	Boys and girls are involved in different sports.	Different sports
(168) I would play with dolls and things like that.	Girls play with dolls and other "feminine" toys.	Different toys
(169) I would wear fancy dresses.	Girls wear fancier attire than boys.	Clothing
(170) Your friends would change.	Gender influences your circle of friends.	Different friends
(171) I would have to get new clothes.	Girls wear different clothes than boys do.	Clothing
(172) My friends would be girls.	Girls are friends with other girls, not boys.	Gender composition of friends

(173) I would not like sports like hockey.	Girls are not interested physically demanding and aggressive sports.	No hockey
(174) I would like different toys.	Girls like different toys than boys do.	Different toys
(175) I would like different T.V. shows.	Girls and boys like different T.V. shows.	Different T.V. shows
(176) I would have to sleep with a boy.	Girls become romantically involved with boys.	Romantic attraction
(177) I would have to cook supper for my boyfriend.	It is the female's responsibility to cook male.	Cooking
(178) I couldn't be a father.	Anatomy destines fatherhood.	Anatomy
(179) I can't play hockey in the N.H.L.	Only males become professional hockey players.	Gender-typing: male hockey players
(180) Would have to have a baby.	Females must have babies.	Child-bearing
(181) Couldn't be a wrestler.	Only males can be wrestlers.	Gender-typing: male wrestlers
(182) Couldn't fill your occupations (professional hockey player).	Females can not expect to be professional hockey players.	Gender-typing: male hockey players
(183) Would have to give up a like for sports.	Girls do not like sports.	No interest in sports
(184) I would have to wear different clothes.	Girls wear different clothes than boys do.	Clothing
(185) I would look different.	Males and females differ in appearance.	Anatomy
(186) I would act different.	Boys and girls act differently.	Act different
(187) I would get different things.	Boys and girls get different things.	Receive different things

(188) The boys will be chasing me.	Boys chase girls.	Annoyed by boys
(189) I would probably get girls' clothes.	Girls wear "feminine" clothing.	Clothing
(190) I would have to be smart.	Girls are smarter than boys.	Need to be more intelligent
(191) I know I wouldn't get in trouble.	Girls do not get into trouble.	Not get into trouble
(192) I would be the tulip of the family.	Girls are the center of attention in the family.	Treatment by family
(193) I would wear pink dresses.	Girls wear dresses and like the colour pink.	Clothing Colour preference
(194) Couldn't be an assassin.	Girls do not engage in violent behavior.	Not violent
(195) Can't wield heavy guns.	Girls are physically weak.	Weak
(196) Would act differently.	Boys and girls differ in their behavior.	Act different
(197) I could be a nurse.	Only females can be nurses.	Gender-typing: female nurses

II. Junior High Students (Grades 7 - 9)

A. Female Students

(198) I would feel different toward others.	Boys and girls feel differently about other people.	Feel different
(199) I wouldn't want the same occupation (artist) as I did when I was a girl.	Boys would not want to be an artist.	Gender-typing: female artists
(200) I would have to wear different clothes.	Boys wear different clothes than girls do.	Clothing
(201) I would probably have to act differently when it comes to meeting a girl.	The interaction between a boy and girl differs from the interaction	Romantic attraction
(202) I wouldn't be able to do some things that girls can do.	There are some things that only girls can do.	Different activities
(203) There might be some changes in what jobs I could get and how I could get them.	Boys and girls differ in the jobs they can obtain. The requirements for jobs vary for men and women.	Unequal occupational opportunities Unequal access to occupations
(204) I'd scream in the first place.	This girl fears being a boy.	Devalues male
(205) I'd have to make new friends because I couldn't hang around with the girls.	Boys are friends with their male peers and can not be friends with girls.	Gender composition of friends
(206) Being a boy wouldn't really change a type of career. I'd stick with my same career (kindergarten teacher).	Gender does not change one's occupational aspirations. Both males and females can be kindergarten teachers.	Male and female kindergarten teachers
(207) If I were a boy my room would probably be different.	Boys and girls' rooms look different.	Room preference
(208) The work that I was given probably wouldn't be housework.	Parents do not expect boys to do housework.	No housework

(209) I would be different in alot of ways - physically and mentally.	Males and females differ in their anatomy and in their intelligence.	Anatomy Different mentally
(210) My career would change (lawyer).	Boys would not want to be lawyers.	Gender-typing: female: lawyers
(211) The people I assoicate with would change.	One's gender influences one's associates.	Different friends
(212) What I see in life would also change.	Boys and girls differ in their attitudes.	Attitudes
(213) The first thing I do is cut off my hair!	Boys are expected to wear short hair.	Hair length
(214) I'd definitely quit wearing make-up and earrings.	It is inappropriate for boys to wear make-up earrings.	No feminine jewellry
(215) At least I'd never have to wear a dress again.	Girls are expected to wear dresses even though some girls do not like wearing them.	Clothing Values male
(216) My wardrobe would definitely change.	Boys and girls have different wardrobes.	Clothing
(217) I would finally get to change the colour of my room from pink (I hate pink) to green.	Girls are expected to like pink even though some girls prefer other colours.	Colour preference Values male
(218) The activities I do would change, like from the figure skating club to the hockey club.	Boys participate in hockey rather than in figure skating.	Hockey No figure skating
(219) The way I look at the future and the present may also change.	Boys and girls might differ in their attitudes about the present and the the future.	Attitudes
(220) I'd also change my style of glasses.	Boys and girls wear different glasswear.	Glasswear
(221) I would probably play more boys' sports like football and floor hockey.	Boys play more aggressive and physical sports.	Football Floor hockey

(222) My chores at home would change; instead of doing dishes (yuk), I'd feed the pigs.	Girls are expected to do housework even though they might prefer outdoor and physical work.	No dishes Farm work
(223) I'd have to go to the other washroom.	Physical anatomy would dictate going to the boys' washroom.	Toileting
(224) My name would have to change to a boy's name like John or Fred because _____ is more of a girl's name.	Names are gender-typed.	First name
(225) I'd have to get different clothes because boys don't wear pink sweaters and skirts.	Boys do not wear "feminine" clothing. Boys do not like the colour pink.	Clothing Colour preference
(226) My body would change since boys and girls both have extra body parts.	Boys and girls differ in their anatomy.	Anatomy
(227) My language would change from "Hi!" to "Hey you!".	Boys use language that that is more aggressive when they greet people.	Different speech
(228) I would have to become tougher and have a different attitude toward things like girls, boys, and relationships between them.	Boys are tougher. Gender dictates how one interacts with boys and girls.	Strong Attitudes Romantic attraction
(229) I really have to be less sensitive around others like boys are. Boys are sensitive alone but when others are around they act really cool!	Boys, in contrast to girls, are not sensitive. Boys can be sensitive; however, they try to impress other boys by not being sensitive.	Less sensitive
(230) I would act different and feel different about things.	Boys act and feel differently than girls.	Act different Feel different
(231) I would be stronger and do different things.	Boys are able to do different things because of their physical strength.	Strong Different activities
(232) I would look and dress differently.	Boys and girls differ in their appearance and in their dress.	Clothing

(233) I would have harder chores than when I was a girl.	Boys do harder chores than girls.	More physically demanding chores
(234) My body would change.	Boys and girls differ in anatomy.	Anatomy
(235) I would have to get married to a girl and they would have babies not me.	Anatomy dicates that females bear children.	No child-bearing
(236) I would have to learn how to do things like lift heavy boxes and other things.	Boys engage in more physically demanding activities than girls.	More physically demanding chores
(237) I would also have more responsibilities if I was a guy.	Boys are given more responsibilities than girls.	More responsibil-ities
(238) I would be expected to be more mature and stronger.	Boys are expected to be mature and stronger.	More mature Strong
(239) I would feel sick.	This girl would not enjoy being a boy.	Devalues male
(240) Boys act big and tough. A girl is supposed to act soft and gentle but usually don't.	Boys are supposed to act strong and tough whereas girls are supposed to act soft and gentle.	Strong
(241) I wouldn't know how to talk.	Boys talk differently than girls.	Different speech
(242) My life would be different in schoolwork and at my job.	Boys and girls differential treatment at school and on the job.	Treatment at school Treatment at the job
(243) Now I couldn't be a daycare worker, I would have to choose another job.	Boys can not be daycare workers.	Gender-typing: female day-care worker
(244) School would be very different.	School provides different experiences for boys and girls.	Treatment at school
(245) All friends would change.	Boys and girls do not have the same friends.	Different friends

(246) Instead of going shopping with my girlfriends, I would be going hunting chicks with the guys.	Girls spend time shopping whereas boys pursue girls.	Not shopping Pursue girls
(247) Instead of shaving my legs I would turn into a hairy thing.	Girls have to shave whereas boys do not.	Hairy legs
(248) I wouldn't have the thrill of wearing a beautiful white dress.	Girls enjoys wearing "feminine" clothes.	Values female Clothing
(249) I don't think I would like my life if I changed into a guy.	This girl would not enjoy being a boy.	Devalues male
(250) I would have to wear different clothes.	Boys wear different clothes than girls.	Clothing
(251) I would have to act differently towards things.	Boys act differently than girls.	Act different
(252) I would have to enjoy being a farmer, a mechanic, and Industrial Arts.	Boys like to be farmers and mechanics. Boys like subjects like Industrial Arts.	Gender-typing: male farmers & mechanics Industrial Arts
(253) Strength wouldn't change because a lot of girls have the same strength as boys.	Boys and girls do not differ in physical strength.	Equal in strength
(254) Have different values, goals, and attitudes.	Boys and girls have different values, goals, and attitudes.	Values Goals Attitudes
(255) A lot of boys do jobs the same as girls do. Some jobs are different such as being an actress, a nurse, and a model.	Boys do many jobs that girls do; however, they do not become actresses, nurses or models.	Varied occupational opportunities Gender-typing: female actresses, nurses, & models

(256) Like girls weak make-up, dresses, pantyhose, etc. Boys wear boys' clothes.	Boys wear "masculine" clothing. Boys do not use make-up.	Clothing No make-up
(257) I would love my life. No more long hair, girls' clothes, earrings, nylons, make-up, girls' shoes, bras, curling irons etc.	This girl would love being a boy. Girls have to be concerned with their appearance.	Values male Hair length Clothing No make-up Less coiffing of hair.
(258) I could drive a tractor.	Only boys drive tractors.	Farm work
(259) I could be a farmer.	Only boys can be farmers.	Gender-typing: male farmers
(260) I could have different hair dues.	Boys and girls wear different hairstyles.	Hairstyle
(261) I could have hairy legs.	Boys do not have to shave their legs.	Hairy legs
(262) I could bug girls.	Boys annoy girls.	Annoy girls
(263) Have more opportunity to get a job.	It is easier for boys to get a job.	Increased occupational opportunities
(264) I could drive a truck.	Only boys drive trucks.	Gender-typing: male truck drivers
(265) I could wink at girls.	Boys openly display their interest in girls.	Overt display of romantic interest
(266) I would play sports like hockey, soccer, football, rugby, etc.	Boys engage in more physical and aggressive activities than girls.	Hockey Soccer Football
(267) We would be different in strength, etc. We would be stronger than the girls.	Boys are stronger than girls.	Strong

(268) It would be a drastic change at least for me. I enjoy being a girl and her life priorities ahead of her.	This girls enjoys being a girl and looks forward to her future as a girl.	Values female
(269) Wear no make-up.	Boys do not wear make-up.	No make-up
(270) No styling hair.	Boys do not coif their hair.	Less coiffing of hair
(271) My careers and goals would change (make-up artist).	Males do not become make-up artists.	Gender-typing: female make-up artists
(272) At age 13 I would be less mature.	Girls are more mature than boys.	Less mature
(273) In some cases I'd be much stronger.	In some situations boys are stronger than girls.	Strong
(274) I would be more rambunctious.	Boys are more active than girls are.	More active
(275) My hobbies would change.	Boys and girls have different hobbies.	Different hobbies
(276) I would adore girls.	Boys are extremely fond of girls.	Romantic attraction
(277) Have more guy friends than girl friends.	Boys have more male friends than female friends.	Gender composition of friends
(278) I would have to go buy all new clothes.	Boys wear different clothes than girls.	Clothing
(279) I would have to get my hair cut.	Boys wear their hair short.	Hair length
(280) Change my room to all guy stuff instead of girls' stuff.	Boys and girls have different things in their rooms.	Room preference
(281) The way I act.	Boys act differently than girls.	Act different
(282) Voice.	Boys and girls have different voices.	Anatomy

(283) Room would be redecorated.	Boys and girls' rooms are decorated differently.	Room preference
(284) Books I read.	Boys read different types of books than girls.	Different books
(285) I would play more sports and be tough.	Boys play more sports that require physical strength.	Wider range of sports Strong
(286) I wouldn't like shopping as much.	Boys do not like shopping as much as girls do.	Not shopping
(287) I could be braver than I am.	Girls are braver than boys.	Brave
(288) I wouldn't have to curl my hair.	Boys do not coif their hair as much as girls do.	Less coiffing of hair
(289) Get dressed and ready faster.	Girls spend more time on their appearance.	Less concern about appearance
(290) Drive a tractor.	Boys drive tractors whereas girls do not.	Farm work
(291) Play more sports.	Boys participate in a wider range of sports.	Wider range of sports.
(292) Be stronger.	Boys are stronger than girls.	Strong
(293) Be taller.	Boys are taller than girls.	Tall
(294) Have short hair.	Boys wear their hair short.	Hair length
(295) Spike my hair.	Boys style their hair differently than girls.	Hairstyle
(296) No high heels.	Boys do not wear high heels.	Footwear
(297) Spend less money on hair things.	Girls spend more money than boys on hair products.	Spend less money on appearance

(298) Could have a different job.	Males have different jobs than females.	Gender-typing of occupations
(299) Like different things.	Boys and girls have different interests.	Different interests
(300) Be treated differently.	Boys and girls are treated differently.	Treatment by others
(301) Be stronger.	Boys are stronger than girls.	Strong
(302) I don't think it would change very much job wise (dancer).	Both men and women can be dancers.	Male & female dancers
(303) Men and women are equal.	Men and women are equal.	Gender equality
(304) I'd have to work outside.	Boys work outside.	Outdoor chores
(305) More work being assigned to me.	Boys are assigned more work than girls are.	More responsibilities
(306) If I changed from a girl to a boy, but still had the same feelings as I do now I guess I would be seen to be a little weird.	Boys and girls are expected to have different feelings.	Feel different
(307) To me boys aren't supposed to think the same as girls, it wouldn't seem right.	Boys and girls are not supposed to think the same.	Different mentally
(308) My career plans would change because maybe a librarian isn't suitable for a boy, but instead I maybe would be required to stay home and farm.	Only girls are suited to being librarians. Boys might be expected to become farmers.	Gender-typing: female librarians & male farmers
(309) I would become a mechanic instead of a social worker.	Mechanics are male and social workers are female.	Gender-typing: male mechanics & female social workers
(310) I would have to change my name and my attitude.	Names are gender-typed. Boys and girls have different attitudes.	First name Attitudes

(311) My life would be ruined because someday I would like to own or work in a daycare or nursery plant.	This girl would not enjoy being a boy because she would not be able to work as a daycare or nursery plant worker.	Devalues male Gender-typing: female daycare & nursery plant workers
(312) I would look alot different.	Boys and girls differ in appearance.	Anatomy
(313) First thing I would do is get my hair cut.	Boys wear their hair short.	Hair length
(314) I'd still like to be a police officer, since that job is for both males and females.	Both males and females can be police officers.	Male & female police officers
(315) I'd be able to go out more.	Boys get to go out more than girls.	Treatment by parents
(316) Sports wise, I'd probably learn to play hockey, and change my interests quite a bit.	Boy, not girls, play play hockey. Boys and girls have different interests.	Hockey Different interests
(317) I'd sell my jewellry.	Boys do not wear feminine jewellry.	No feminine jewellry
(318) I would even work out to improve my muscles because boys want to look big and strong for the girls to see.	Boys are concerned about attracting girls with a muscular physique.	Muscular
(319) I would also have to learn how to drive a tractor and other farm equipment.	Boys are expected to to operate farm equipment.	Farm work
(320) I probably would have to pay for my girlfriend's expenses too (such as dates, presents, flowers etc.).	Boys have additional expenses when dating.	More dating expenses
(321) Be doing different work at home.	Boys and girls have different chores at home.	Different chores
(322) Have a greater interest in sports.	Boys are more interested in sports than girls are.	Sports

(323) It would be different because it would change some of my opportunities. Some men are more qualified for certain jobs than women.	Men are more qualified for some occupations than females; therefore, there would be increased occupational opportunities.	Increased occupational opportunities
(324) I would probably go for a more masculine job.	Boys aspire to "masculine" occupations.	Gender-typing of occupations

B. Male Students

(325) My life would be different because you would dress in girls' clothes.	Girls wear different clothes than boys.	Clothing
(326) I wouldn't be stronger.	Girls are weaker than boys.	Weak
(327) I would change my career (farmer) and do different things.	Females can not be farmers. Boys and girls do different things.	Gender-typing: male farmer Different activities
(328) I will have to change my name.	Names are gender-typed.	First name
(329) It will be different because we will have to buy bras and tampons.	The different anatomy of girls will require the purchase of appropriate female underwear and products.	Anatomy
(330) Will be sick every month.	Only girls menstruate.	Menstruation
(331) Will have to go to different washrooms.	Differences in anatomy different toileting practices.	Toileting
(332) Buy different clothes.	Girls wear different clothes than boys do.	Clothing
(333) I would have to grow my hair long.	Girls should wear their hair long.	Hair length
(334) I would have to shave my arms and legs.	Girls need to shave their arms and legs whereas boys do not.	Shave legs & arms

(335) I would have to start wearing different glasses.	Boys and girls wear different types of glasswear.	Glasswear
(336) I would have to act differently.	Boys and girls act differently.	Act different
(337) I would have to get a new wardrobe.	Girls have different wardrobes than boys.	Clothing
(338) I would have to use make-up.	Girls are expected to use make-up.	Make-up
(339) I would have to change my name to a girl's name.	Names are gender-typed.	First name
(340) I would have to use different washrooms.	Different anatomy would require different washroom facilities.	Toileting
(341) Have to change my name.	Names are gender-typed.	First name
(342) Have to change my clothes.	Girls wear different clothes than boys.	Clothing
(343) Have different shape.	Boys and girls have different figures.	Anatomy
(344) Want to be something else (vet) when I grow-up.	Girls can not be veterinarians.	Gender-typing: male veterinarian
(345) Take figure skating or something like that.	Figure skating is an appropriate sport for girls.	Figure skating
(346) Worry more about how I look.	Girls worry more about their appearance than boys do.	More concern about appearance
(347) Wouldn't keep my room and locker so messy.	Girls are not as messy as boys.	Neat
(348) My voice would be higher and I would have a bad temper.	Boys and girls have different voices. Girls have bad tempers.	Anatomy Bad temper
(349) I would have breasts and wear a bra.	Boys and girls have a different anatomy that dictate appropriate undergarments.	Anatomy

(350) I would take care of the house.	Females take care of the housework.	Housework
(351) Wouldn't have as much as a change to get a job.	It is more difficult for for females to get jobs.	Limited occupational opportunities
(352) Wear alot of make-up.	Girls wear lots of make-up.	Make-up
(353) Won't be able to farm.	Girls can not farm.	Gender-typing: male farmers
(354) Have long hair.	Girls wear their hair long.	Hair length
(355) Would spend an hour on my hair in the morning.	Girls spend a lot of time doing their hair.	More concern about appearance
(356) I would have to run to the washroom in the house.	Girls can not urinate outside like boys can.	Toileting
(357) Use tampons.	Girls menstruate and boys do not.	Menstruation
(358) Clean house.	Girls clean house.	Housework
(359) Couldn't do hard work.	Girls are not as strong as boys.	Weak
(360) Buy all kind of garbage - bra's panties, and make-up.	Girls need to purchase more personal items than boys.	More personal items
(361) I would view things differently. For example, women's rights I would probably be a stronger supporter.	My attitude would change particularly with respect to women's rights.	Attitudes
(362) I would be physically weaker, but my intelligence would stay the same.	Girls are physically weaker than boys. Boys and girls are equal in intelligence.	Weak Equal intelligence
(363) I don't want to be a girl.	This boy does not want to be a girl.	Devalues female
(364) I first would have to tell everyone to leave the toilet seat down.	Differences in anatomy dictate different toileting practices.	Toileting
(365) I wouldn't like to be a girl.	This boy would not like to be a girl.	Devalues female

(366) I would have to get up earlier to do my hair.	Girls spend more time doing their hair than boys do.	More concern about appearance
(367) Have to buy make-up, hairspray, and other cosmetics.	Girls use cosmetics that boys do not use.	Make-up
(368) Different goals in life.	Boys and girls have different goals in life.	Goals
(369) Buy different clothes.	Girls wear different clothes than boys.	Clothing
(370) You could get pregnant.	Girls can get pregnant.	Child-bearing
(371) More pressure being a girl.	Girls face experience more pressures than boys.	More pressure
(372) Would be weaker.	Girls are weaker than boys.	Weak
(373) I'd wear different clothes.	Girls wear different clothes than boys.	Clothing
(374) I'd complain about breaking nails.	Girls are concerned about their appearance.	More concern about appearance
(375) I couldn't leave the house without my hair just right.	Girls are concerned about how they look, especially their hair.	More concern about appearance
(376) Like shopping.	Girls like shopping.	Shopping
(377) Wear nail polish, lipstick, put on mud-packs, and wear earrings.	Girls do many things to enhance their appearance.	Make-up Earrings
(378) I'd be a weakling.	Girls are weak.	Weak
(379) I wouldn't have to do farm work around the farm.	Girls do not do farm work.	No farm work
(380) I would go to the bathroom differently.	Anatomy dictates different toileting practices.	Toileting
(381) My jobs around the house would change.	Boys and girls have different chores around the house.	Different chores
(382) I would be a lot dumber.	Girls are not as intelligent as boys.	Less intelligent

(383) If I were a girl I would hate it because I wouldn't be as strong and I would have to buy more stuff like bras and stuff like that.	This boy would not like to like to be a girl. Girls are weaker than boys. Girls need to purchase more personal items.	Devalues female Weak More personal items
(384) I probably would be a hairdresser instead of a farmer.	Girls often become hairdressers and do not become farmers.	Gender-typing: female hairdressers & male farmers
(385) I don't think it would be much of a difference for my work (farmer) because any person can do any job if they put their mind to it. A job isn't hard to do if you think you are capable of doing it. Men are stronger but women could do the job.	Males and females are capable of doing the same jobs even though males are stronger than females. A woman can be a farmer.	Male & female farmers Weak
(386) The first thing I would do is run to the washroom and scream!!! Yes my life would change very much.	This boy would not like to be a girl because his life would change very much.	Devalues female
(387) Things would happen to me every month that would not normally happen.	Girls menstruate whereas boys do not.	Menstruation
(388) I don't think I would have any kids because it would hurt alot. And I would have to try harder to see my feet every time I look down.	Girls bear children and endure much pain and discomfort doing so.	Child-bearing
(389) I would have to wear different clothes.	Girls wear different clothes than boys.	Clothing
(390) I would have to act differently.	Boys and girls act differently.	Act different

(391) I would be asked out instead of me asking them.	Boys take the initiative in arranging a date.	Do not initiate date
(392) There would be less fighting involving me.	Boys engage in more aggressive behavior.	Less fighting
(393) People would expect me to do women's work like clean house or be a secretary.	Women are expected to be a homemaker or be a secretary.	Gender-typing: female homemakers & secretaries
(394) I would be different in physical appearance.	Boys and girls have a different anatomy.	Anatomy
(395) I would be a mother maybe someday.	Gender determines the possibility of motherhood.	Child-bearing
(396) I would have to learn to cook.	Girls need to know how to cook.	Cooking
(397) I would have to be prepared to have children.	Women are expected to have children.	Child-bearing
(398) I would have to expect to be limited to jobs. I would still want to be an architect but more men are that.	Girls' occupational choices are more restricted than boys are. More men are architects than women.	Restricted range of occupational options Male & female architects
(399) I would have to forget about hockey.	Girls do not play hockey.	No hockey
(400) I would have to change my personality.	Boys and girls have different personalities.	Personality
(401) I might have to change my job (truck driver).	Girls are less likely to be truck drivers.	Gender-typing: male truck drivers
(402) I wouldn't want to get pregnant.	Girls worry about not getting pregnant.	Child-bearing
(403) My last name will change.	Girls assume their husband's surname when they marry.	Surname

(404) I may not get the job (truck driver) I wanted when I was a boy.	It is more difficult for women to obtain jobs as truck drivers.	Limited occupational opportunities
(405) I would never want to become a girl.	This boy would not enjoy being a girl.	Devalues female
(406) I'd need new clothes.	Girls wear different clothes than boys.	Clothing
(407) Change careers (chartered accountant).	Only males can be chartered accountants.	Gender-typing: male accountants
(408) I would have to buy new clothes.	Girls wear different clothes than boys.	Clothing
(409) In school I would be favored.	Teachers favor girls.	Treatment by teachers
(410) In jobs I would be picked on.	Females experience harassment on the job.	Treatment at the job
(411) People might not give you a job or you might even have a better chance of getting a job.	The ease of obtaining employment varies for women.	Varied occupational opportunities
(412) I might have to do more at home.	Girls do more housework.	Housework
(413) I'll probably be neater.	Girls are neater than boys.	Neat
(414) Have to spend money on make-up.	Girls spend more money on enhancing their appearance.	Spend more money on appearance
(415) Become less heavy (lose weight).	Girls should weigh less than boys do.	Weigh less

Senior High Students (Grades 10 - 12)

A. Female Students

(416) My interests would change about equal rights.	Boys and girls hold different attitudes about equal rights.	Attitudes
(417) Perspectives on school subjects would change.	Boys and girls have differential views on school subjects.	Attitude toward school subjects
(418) Be involved in different sports.	Boys are involved in different sports than girls are.	Different sports
(419) Have different friends.	Boys and girls have different friends.	Different friends
(420) Have different views on what kind of career I would like to pursue.	Gender influences one's occupational choices.	Gender-typing of occupations
(421) I probably wouldn't do a lot of things I do now like figure skating. Certain stereotypes are placed on people. Many people think men figure skaters and dancers are all gay and femmie, therefore, some of the options would be limited.	Gender influences the activities one becomes involved in. Stereotypes limit males' involvement in such "feminine" activities as dancing and figure skating.	Different activities Restricted range of occupational options
(422) Being a boy could also be an advantage in looking for a job. Although many jobs can be either sex there are some jobs mainly opened for men.	Males have the advantage over females in the labour force. Although there are occupations that are open for either gender, there are some occupations that are only open to males.	Wider range of occupational options
(423) I would probably still be concerned with my looks, be conscientious (but try and hide it and have self-doubt).	It is not socially acceptable for boys to be concerned about their appearance or to be conscientious.	Less concern about appearance

(424) Your occupations that you picked might change. It depends on the person. Like I want to be a nurse but if I woke up as a guy I don't think I'd want to be a nurse anymore. It would depend on what my occupation was. If I woke up and I was an astronaut when I was a girl then I think I would want to stay one.	There are certain occupations that both males and females could have such as an astronaut. Males would not want to be a nurse.	Gender-typing: female nurses Male & female astronauts
(425) My pay roll may possibly be higher considering the discrimination between men and women.	Inequality exists in male and females' employment remuneration.	Higher salaries
(426) Also depending upon the occupation I had I might be frowned upon. For example, many people don't like the idea of men being nurses, it's considered more of a women's job.	Occupations are gender-typed. For example most people expect nurses to be females. Exceptions are frowned upon.	Occupational stereotypes
(427) I would be considered stronger compared to a women because traditionally women are supposed to be emotionally weaker than a man, which is not always the case.	Stereotypes exist that state that women are more emotional than men: this is not always the case.	Affective stereotypes
(428) Men have better opportunities for very high jobs - for executive companies and board of directors. How many women do you see on the board of directors for big companies?	It is easier for men than women to secure occupations that are highly paid and prestigious.	Increased occupational opportunities More prestigious occupations Higher salaries
(429) I think my career choice (nurse) would definitely change.	Only females should be be nurses.	Gender-typing: female nurses

(430) My values and the way I see things in life would probably change.	Boys and girls hold different values and attitudes.	Values Attitudes
(431) My peer group would be slightly different and might attitude toward school might be different.	Boys and girls have slightly different peer group. Boys and girls have different attitudes toward school.	Different friends Attitudes
(432) My parents would give me more responsibilities around the house.	Parents give more responsibilities around home to boys than girls.	More responsibilities
(433) I would probably get the things I wanted because as a girl I wouldn't get some of these things such as a truck.	Parents differentially provide material things to boys and girls. For example, boys are more likely than girls to be given a truck.	Treatment by parents
(434) I would really look silly with long hair that is curled and make-up if I were a boy.	Boys wear their hair short. Boys do not coif their hair nor wear make-up.	Hair length Less coiffing of hair No make-up
(435) My occupation I wish to pursue would be the same because it would not change the way I feel about photography. It may even make it easier for me to convince my parents that I can make a go of it in the business world for they tend to think because I am a girl I will not be able to stand up to the pressures of the business world. I would like to go to college and get a degree in Business so that I have something to fall back on if photography doesn't work out but I would like to become a secretary and have a job while I pursue my goal but if I were a boy I would get into business because I would feel self-conscious	Interest not gender determines whether a person will be a photographer. Men would feel uncomfortable as secretaries. Parents do not expect females to succeed in the business world.	Male & female photographers Parental expectations Gender-typing: female & male businesspeople

as a secretary.

(436) I think my career choice (travel agent) would change. I am hoping for an office job with lots of opportunities. If I was a boy, I think that there would be many better jobs that I could choose to satisfy what I want with many more opportunities for advancement. Therefore, I think I could get further in life if I was a boy.	Occupations such as travel agent are "female" occupations. Boys have a wider range of occupa-ations to choose from. Boys also have more opportun-ity for advancement. Boys can accomplish more in life than girls.	Gender-typing: female travel agent Wider range of occupational options More opportunity for occupational advancement
(437) Have different ideals and attitudes.	Boys and girls have attitudes and values.	Attitudes Values
(438) Maybe my career (nurse) expectations would be changed.	Boys might not expect to be nurses.	Gender-typing: female nurses
(439) Besides the change in my appearance and body, my outlooks on life may also take a change.	Male and females differ in their anatomy. Males and females view life differently.	Anatomy Attitudes
(440) My career plans for the future would probably change from a teacher (elementary) to something like a mechanic.	Occupations are gender-typed. An elementary teacher is considered appropriate for a female whereas a mechanic is more appropriate for a male.	Gender-typing: female elementary teacher & male mechanic
(441) I would probably also have to worry about having to support a family from the pay I make.	It is a man's responsi-bility to be the primary breadwinner in the family.	Primary breadwinner
(442) I'd be able to farm our land.	Farming is a male occupation.	Gender-typing: male farmer
(443) Probably would've learned how to drive a tractor at 11 years of age.	Boys at a young age learn how to drive tractors whereas girls do not.	Farm work

(444) Be able to have a set of weights and work out to have a strong, muscular body.	Boys are concerned about having a strong and muscular body.	Muscular
(445) I wouldn't be able to give birth to children.	Males are not able to bear children.	No child-bearing
(446) I'd have my daddy's last name which I'd be very proud of.	Upon marriage boys, in contrast to girls maintain their surname.	Surname
(447) Probably have my driver's and be able to go out more.	Parents restrict girls from going out as much as boys do and allow boys to obtain their driver's license sooner than girls.	Treatment by parents
(448) But my occupation (police officer) would stay the same!	A decision to be a police officer as a female is not affected by a change in gender.	Male & female police officers
(449) My interests would change in the way of a boy, but my interests would not change because I love to live and work on the farm. My life may even be better as a boy, because as a girl and as I love the farm, my only hope is to marry a man who also likes the farm.	Boys and girls are expected to have different interests. For example, boys, not girls, are expected to be interested in farming. Boys enjoy a better life because they can independently pursue their interest in farming whereas girls can only do so if they marry a farmer.	Farming interests Gender-typing: male farmers Values male
(450) I like to cook and men are able to cook too.	Both men and women can cook.	Cooking
(451) Some of my interests would change. For example, I wouldn't be checking out the male population any more. I think that I might become more into doing work around the farm.	Boys and girls have some differences in interests. For example, males are interested in females and vice versa. Boys engage in more farm-related tasks.	Different interests Romantic attraction Farm work
(452) I do believe that my future career goals would not change because I can still be an accountant because this occupation isn't really role-oriented.	Both males and females can become accountants because this occupation is not gender-typed.	Male & female accountants

(453) I would probably have different opinions on certain things than when I was a girl.	Boys and girls have different attitudes on certain topics.	Attitudes
(454) I also think that my occupation (social worker) would be different.	Only females should be social workers.	Gender-typing: female social worker
(455) I would have to change the way I dress and do my hair.	Boys and girls dress differently and wear different hairstyles.	Clothing Hairstyle
(456) No more make-up, no more skirts.	Boys do not wear make-up nor wear feminine types of clothing.	No make-up Clothing
(457) Some of my career choice would definitely be different. I would think it would be acceptable for a male to be in careers that I thought before only acceptable for females.	Boys and girls choose different occupations. One's gender influences one's attitude toward males being in "traditionally female" occupations.	Gender-typing of occupations Attitudes
(458) My outlook on life would change.	Males and females have a different outlook on life.	Attitudes
(459) I would be more open-minded toward certain things, such as traditional roles.	Males and females differ in their attitudes toward certain issues such as stereotyping.	Attitudes
(460) Probably get my way more often.	Boys get their way more often than girls.	Get way more often
(461) Hardly any limits on the career I would want to choose.	Boys can choose from a wider range of occupational options.	Wider range of occupational options
(462) Could participate in sports which are "ONLY" for boys.	There are some sports that are only for boys.	Gender-typing of sports
(463) Wouldn't be judged on how you dress or don't dress. Wear what I want.	Girls are judged on the basis of dress whereas boys can wear whatever they chose.	Less concern about appearance

(464) Because the male gender is the stronger of the two, I would probably be involved in more work dealing with strength.	Males are stronger than girls; therefore, they are more likely to engage in physical work.	Strong
(465) I may also be involved in different sports, such as hockey.	Boys and girls are involved in different sports. Boys play hockey, girls do not.	Hockey
(466) For the line of work (broadcaster/producer) when I graduate, I'd most likely enjoy the same things so I'd still enter the same field.	A decision to be a broadcaster or producer as a female is not affected by a change in gender.	Male & female broadcaster/ producer
(467) The physical appearance of being a boy would certainly be different, but as for mental changes, they would not change that much.	Males and females differ in their anatomy; however, their mental abilities would not change much.	Anatomy Equal Intelligence
(468) I have always felt that a girl can do whatever a boy can if she strives hard enough and a boy can do whatever a girl can if he strives hard enough.	Males and females can can do whatever the other gender does if they put forth a real effort.	No gender-typing of occupations No gender-typing of activities
(469) If I had become a registered nurse, I would not have to change occupations because men can be nurses just as well as women.	Both men and women can be nurses.	Male & female nurses
(470) If I was a man, I certainly could not bear a child. This would be a big loss because some day I hope to have children.	Anatomy dictates child-bearing. Not being able to bear children is considered a "loss".	No child-bearing Devalues male
(471) As for my parents, their attitude may change toward me because I am a boy. My parents are quite liberal but they still feel some things only a boy can do.	Parents have different attitudes toward boys and girls. Even "liberal" parents feel that there are some things only a boy can do.	Treatment by parents

(472) Between girls and boys the jobs are really the same for them.	Boys and girls can consider the same occupational options.	No gender-typing of occupations
(473) Everyone in the world is equal between boys and girls so they should have equal chance between them.	Males and females are equal; therefore, they should have equal opportunities.	Should have equal opportunities
(474) I would first have to change my wardrobe.	Boys wear different clothes than girls.	Clothing
(475) I would probably have to change my friends.	Boys and girls have different friends.	Different friends
(476) I would have to change my interests.	Boys and girls have different interests.	Different interests
(477) Instead of wearing make-up I would go into mechanics.	Boys do not wear make-up. Mechanics is considered an occupation for males.	No make-up Gender-typing: male mechanics
(478) Careers would be a major change, especially if you were a home economics teacher.	Occupations are gender-typed. Home economics teachers is a "female" occupation.	Gender-typing: female home ec. teacher

B. Male Students

(479) I would be spending more time with my hair, my face, and my clothes.	Girls spend more time enhancing their appearance.	More concern about appearance
(480) My phone bill would be much higher.	Girls spend more time than boys on the telephone.	Talking on telephone
(481) I would not have to do the same chores as I do now.	Boys and girls are assigned different chores at home.	Different chores
(482) I probably would not be playing hockey but be figure skating instead.	Hockey is a "male" sport and figure skating is a "female" sport.	Figure skating No hockey
(483) I might have a different idea (engineer) of what I want to do in the future.	A girl might not want to be an engineer.	Gender-typing: male engineer

(484) The lifestyles of the female origin is almost the same as the males - career opportunities. Like females are beginning to get equal rights, that of the male.	Males and females have the same occupational opportunities because females are beginning to have the same rights as males.	Should have equal opportunities
(485) I would probably want to be something else (farmer, mechanic, carpenter) like a nurse, secretary or even a lawyer.	Occupations are gender-typed. A farmer, mechanic, and carpenter are "male" occupations whereas a nurse and secretary are "female" occupations. A female could even be a lawyer which is considered a "male" occupation.	Gender-typing: male farmers, mechanics, & carpenters; female nurses & secretaries Male & female lawyers
(486) As for a boy, he takes tough work. As a girl I would probably try to achieve better marks to go to university and maybe even N.A.I.T..	Men, in contrast to women, do not need a post-secondary education because they can secure jobs that require strength.	Non-physical occupations No post-secondary education
(487) My body would be different.	Males and females have a different anatomy.	Anatomy
(488) I would still want to be the same things (business-man). My decision would be unchanged.	Both males and females can be business-people.	Male & female business people
(489) You would have to change your career choices (mechanic).	Gender influences a person's occupational choices. Females would not be mechanics.	Gender-typing: male mechanics
(490) You would have to force yourself to change your way of thinking to a more feminine approach toward life. That would in fact be caring for other people like so many women do.	Men and women differ in how they think about life. Most women care for other people.	Different mentally Person-oriented occupations
(491) It would mean changing your habits from poor ones to good ones.	Girls have good habits whereas boys have poor habits.	Good habits

(492) You would need a new wardrobe and make-up to match.	Girls have a different wardrobe than boys and wear make-up.	Clothing Make-up
(493) Your new careers after changing would probably involve nursing, childcare or something like counselling or something in those fields.	Females tend to select occupations that are person-oriented (nursing, childcare, counselling).	Person-oriented occupations Gender-typing: female nurse, childcare worker & counsellor
(494) My life would be different because my outlook on the way I think and view people along with my ideas, thoughts and views would change drastically.	Males and females differ in how they think. They also have different attitudes.	Different mentally Attitudes
(495) The way I act, talk, and think would change.	Males and females differ in their behavior, speech, and thinking.	Act different Different mentally Different speech
(496) My whole lifestyle would be shot.	This boy would not enjoy his lifestyle as a girl.	Devalues female
(497) My career choices (worker in the forestry or petroleum field) would differ greatly.	Females can not be work in the forestry or petroleum areas.	Gender-typing: male forestry & petroleum workers
(498) I would need a new wardrobe.	Girls have different wardrobes than boys.	Clothing
(499) I would have to throw away the last few condoms I have left.	Boys and girls differ in their anatomy.	Anatomy
(500) I probably would also have to change my career (agricultural mechanic).	Mechanics is not an an occupation for females.	Gender-typing: male mechanic

(501) Would also have to make new friends.	Boys and girls have different friends.	Different friends
(502) My career (game warden or mechanic) would probably have to be different.	Females would not becomes mechanics or games wardens.	Gender-typing: male game warden & mechanic
(503) I would also probably have to change my name.	Names are gender-typed.	First name
(504) Buy another wardrobe.	Girls have different wardrobes than boys.	Clothing
(505) I'd freak and I don't know what I would do.	This boy finds the prospect of being a girl frightening.	Devalues female
(506) Go shopping for new clothes, make-up, and stuff like that.	Girls wear different clothes than boys and wear make-up.	Clothing Make-up
(507) Probably there would be a slight change in my interest of careers (funeral director).	Girls would not be would not be interested in being a funeral director.	Gender-typing: male funeral director
(508) I probably would find it harder to get some jobs and easier to get others.	There are some occupations that are easier for females to obtain and there are some occupations that are easier for males to obtain.	Varied occupational opportunities
(509) Find it harder to get a job which is thought to be a man's job (mechanic).	Females find it harder to obtain "male" occupations.	Gender-typing: male mechanic Limited occupational opportunities
(510) First I would have to change my name.	Names are gender-typed.	First name
(511) I would have to get new clothes.	Girls wear different clothes than boys.	Clothing
(512) I would have to make new friends.	Boys and girls have different friends.	Different friends

(513) It would be different and scary.	This boy would not want to be a girl and is frightended at the prospect.	Devalues female
(514) First of all, I would scream!	This boy would be frightened at the prospect of being a girl.	Devalues female
(515) I would have to change my personality, lifestyle, and probably friends.	Boys and girls have different personalities, lifestyles and friends.	Personality Lifestyle Different friends
(516) It would be a big shock.	This boy would experience shock at the prospect of becoming a girl.	Devalues female
(517) My choice of employment (computer engineer) might change.	Girls might not become computer engineers.	Gender-typing: male computer engineer
(518) My chance for employment would be greater.	Females have more opportunities than males for employment.	Increased occupational opportunities
(519) Interests would probably change.	Boys and girls have different interests.	Different interests
(520) Career aspirations (professional engineer) would probably be different (more feminine).	Females do not pursue engineering occupations because these are not feminine in nature.	Gender-typing: male engineer
(521) Expectations that others place on me would be different.	People have different expectations for boys and girls.	Treatment by others
(522) I guess my self-determination would have to increase because a girl still has to struggle more to get what she wants.	Girls have to struggle more more than boys to get what they want.	Limited occupational opportunities
(523) I hope my interests would remain the same but I know I would have more hassle getting where I want to be (engineer).	Girls experience more difficulty than boys pursing an occupation that is considered to to be "masculine".	Limited occupational opportunities

(524) My job would change, depending on what I did. If I had a desk job, I would probably keep my job. If I work on a construction site, I would probably have to change my job to something easier. Working on a worksite would be too hard now. I would start looking for any easy occupation to enter. By easy, I mean one that is not strenuous labour.	Some occupations are are gender-typed. For example women can work at a desk; however, they could not work on a construction site because that type of work is too strenuous for them.	Gender-typing: male physical labourer Male & female office worker Weak
(525) Cut down on types of occupations.	Females choose from few occupations than males do.	Restricted range of occupational options
(526) Harder to get jobs.	It is harder for females to get jobs.	Limited occupational opportunities
(527) Spend more money.	Females spend more money than males (possibly to enhance their appearance).	Spend more money on appearance
(528) I may have to work harder to achieve an equivalent level to that of a man.	Females have to work harder than males to achieve an equivalent occupational level.	Limited occupational opportunities
(529) I don't think as many opportunities would be open to me, as a woman.	Women have less opportunities than men for employment.	Limited occupational opportunities
(530) I think I would be outnumbered, when it comes to men, in the corporate world.	There are more men than women in the business world.	Limited occupational opportunities
(531) I believe that there would be no change because women are respected in the working world and are beginning to get into many male-related jobs.	There would be little difference between men and women's occupational choices because women are respected in the working world and are beginning to acquire "traditionally male" occupations.	No gender-typing of occupations Females making inroads in traditional "male" occupations

(532) I'd be treated differently at home and other places.	Parents and other people treat boys and girls differently.	Treatment by parents Treatment by others
(533) I'd be doing different things from what I used to be doing.	Boys and girls engage in different activities.	Different activities
(534) I'd have a different outlook on life.	Boys and girls view life differently.	Attitudes
(535) I would have to buy new clothes.	Girls wear different clothes than boys.	Clothing
(536) My social life would have to change.	Boys and girls have different social lives.	Different social life
(537) If I was super good looking I would go to get a good job using my body.	If girls are good-looking and have a good figure, they could use these to secure employment.	Employ appearance to secure a job
(538) Different likes and dislikes.	Boys and girls have different interests.	Different interests
(539) Buy make-up. More expensive.	Girls spend more money on cosmetics than boys do.	Make-up Spend more money on appearance
(540) Like different jobs.	Boys and girls are interested in different occupations.	Gender-typing of occupations
(541) I would change my friends.	Boys and girls have different friends.	Different friends
(542) I would still have the same interests as I had when I was a boy.	Boys and girls have the same interests.	Similar interests

(Note: The occupations written in parenthesis were included, where appropriate, by the investigator based upon the students' responses to the question, "What do you want to be when you grow up?")

APPENDIX IX

Tabular Summary of Themes Identified From Verbatim Statements Made by Male and Female Students at Each Educational Level

APPENDIX IX

TABULAR SUMMARY OF THEMES IDENTIFIED FROM VERBATIM STATEMENTS MADE BY MALE AND FEMALE STUDENTS AT EACH EDUCATIONAL LEVEL

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
I. PERSONAL CHARACTERISTICS						
A. Appearance						
clothing	6,8,9,15,18, 21,27,33,36, 39,53,63,84, 122,133	140,148,150, 165,169,171, 184,189,193	200,215,216, 225,232,248, 250,256,257, 278	325,332,337,342, 369,373,389,406, 408	455,456,474	492,498,504, 506,511,535
hair length	7,8,14,20,28, 45,67,105	137,151	213,257,279, 294,313	333,354	434	-
hairstyle	-	-	295	-	455	-
less coiffing of hair	14,31,105,117	-	257,270,288	-	434	-
earrings	-	-	-	377	-	-
no feminine jewellry	7,17,28,31, 41,46,86	-	214,317	-	-	-
make-up	-	-	-	338,352,367,377	-	492,506,539
no make-up	24,41,68,116	-	256,257,269	-	434,456,477	-
glasswear	-	-	220	335	-	-
footwear	62,81	-	296	-	-	-
shave legs and arms	-	-	-	334	-	-
hairy legs	-	-	247,261	-	-	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
more concern about appearance	-	-	-	346,355,366, 374,375	-	479
less concern about appearance	71,79	-	289	-	423,463	-
spend more money on appearance	-	-	-	414	-	527,539
spend less money on appearance	-	-	297	-	-	-
more personal items	-	-	-	360,383	-	-
weigh less	-	-	-	415	-	-
B. Physical						
anatomy	22,23,40, 44,48,51, 82,114	143,162,178, 185	209,226,234, 282,312	329,343,348, 349,394	439,467	487,499
menstruation	-	-	-	330,357,387	-	-
child-bearing	-	180	-	370,388,395, 397,402	-	-
no child-bearing	-	-	235	-	445,470	-
toileting	1,7,30	-	223	331,340,356, 364,380	-	-
strong	119,125	-	228,231,238, 240,267,273, 285,292,301	-	464	-
muscular	-	-	318	-	444	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
weak	-	160,195	-	326,359,362, 372,378,383,385	-	524
equal in strength	-	-	253	-	-	-
tall	125	-	293	-	-	-
excel in physical activities	32,124	-	-	-	-	-
C. **Personal attributes**						
personality	113	-	-	400	-	515
attitudes	56	-	212,219,228, 254,310	361	416,430,431, 437,439,453, 457,458	494,534
values	-	-	254	-	430,437	-
goals	-	-	254	368	-	-
lifestyle	-	-	-	-	-	515
messy	26,61,83	-	-	-	-	-
dirty	69	-	-	-	-	-
neat	-	-	-	347,413	-	-
brave	93,111	-	287	-	-	-
clumsy	-	147	-	-	-	-
good habits	-	-	-	-	-	491

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
room preference	-	-	207,280,283	-	-	-
food preference	77,127	-	-	-	-	-
colour preference	98,106	161,193	217,225	-	-	-
D. Cognitive						
less intelligent	-	160	-	382	-	-
different mentally	-	-	209,307	-	-	490,494,495
equal intelligence	-	-	-	362	467	-
need to be more intelligent	-	190	-	-	-	-
E. Affective						
feel different	-	-	198,230,306	-	-	-
less mature	-	-	272	-	-	-
more mature	-	-	238	-	-	-
less sensitive	-	-	229	-	-	-
bad temper	-	-	-	348	-	-
affective stereotypes	-	-	-	-	427	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY Females	UPPER ELEMENTARY Males	JUNIOR HIGH Females	JUNIOR HIGH Males	HIGH SCHOOL Females	HIGH SCHOOL Males
II. BEHAVIOURAL CHARACTERISTICS						
A. General						
act different	52,87	186,196	230,251,281	336,390	-	495
more active	-	-	274	-	-	-
get into trouble	64,90,108,134	-	-	-	-	-
not get into trouble	-	191	-	-	-	-
fighting	88,132	-	-	-	-	-
less fighting	-	-	-	392	-	-
girls report on boys	91,94	-	-	-	-	-
annoy girls	102,126	-	262	-	-	-
annoyed by boys	-	188	-	-	-	-
not violent	-	194	-	-	-	-
B. Activities						
different toys	2,11,13,43,57	168,174	-	-	-	-
different games	58	-	-	-	-	-
different activites	59	-	202,231	327	421	533
different play	-	142	-	-	-	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
outdoor activities	136	-	-	-	-	-
wider range of activities	135	-	-	-	-	-
shoot gophers	131	-	-	-	-	-
different sports	-	167	-	-	418	-
wider range of sports	42,76,101	-	285,291	-	-	-
hockey	32,92,135	-	218,266,316	-	465	-
no hockey	-	145,149,153, 155,158,163, 173	-	399	-	482
figure skating	-	-	-	345	-	482
no figure skating	107	-	218	-	-	-
soccer	89	-	266	-	-	-
football	89	-	221,266	-	-	-
floor hockey	-	-	221	-	-	-
gender typing of sports	-	-	-	-	462	-
no gender typing of sports	-	-	-	-	468	-
talking on the telephone	-	154	-	-	-	480
pursue girls	-	-	246	-	-	-
not shopping	-	-	246	-	-	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY Females	UPPER ELEMENTARY Males	JUNIOR HIGH Females	JUNIOR HIGH Males	HIGH SCHOOL Females	HIGH SCHOOL Males
C. Interests						
different interests	-	166	299,316	-	451,476	519,538
similar interests	-	-	-	-	-	542
different hobbies	74	-	275	-	-	-
different collections	73	-	-	-	-	-
wrestling	3,38	-	-	-	-	-
sports	130	-	322	-	-	-
not sports	-	183	-	-	-	-
different TV shows	60	175	-	-	-	-
different books	65,97	-	284	-	-	-
not reading	85	-	-	-	-	-
different pictures drawn	6€	-	-	-	-	-
shopping	-	-	-	376	-	-
not shopping	78	-	286	-	-	-
farming	-	-	-	-	449	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
III. SOCIAL ASPECTS						
A. Relationships						
gender composition of friends	5,12,37,80,94, 104,123	156,172	205,277	-	-	-
more friends	25	-	-	-	-	-
different friends	-	138,141,164, 170	211,245	-	413,431,475	501,512,515, 541
romantic attraction	29,112	176	201,208,270	-	451	-
dating	47	-	-	-	-	-
more dating expenses	-	-	320	-	-	-
do not initiate date	-	-	-	391	-	-
overt display of romantic interest	-	-	265	-	-	-
dance partners	34	-	-	-	-	-
different social life	-	-	-	-	-	536
different speech	-	-	227,241	-	-	495

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
A. Differential Treatment						
by parents	100	139	315	-	433,447,471	532
by family	-	192	-	-	-	-
by teachers	95,96,103	-	-	409	-	-
at school	-	-	242,244	-	-	-
at the job	-	-	242	410	-	-
by others	110,113	-	300	-	-	521,532
receive different things	-	187	-	-	-	-
get way more often	-	-	-	-	460	-
more pressure	-	-	-	371	-	-
parental expectations	-	-	-	-	435	-
C. Home Responsibilities						
different chores	-	146	321	381	-	481
outdoor chores	75,118	-	304	-	-	-
more physically demanding chores	16,118	-	233,236	-	-	-
more responsibilities	-	-	237,305	-	432	-
farm work	-	-	222,258,290, 319	-	443,451	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
no farm work	-	157	-	379	-	-
housework	-	-	-	350,358,412	-	-
no housework	-	-	208	-	-	-
cooking	-	177	-	396	450	-
no dishes	70	-	222	-	-	-
no babysitting	120	-	-	-	-	-
D. Names						
first name	19,115,129	-	224,310	328,239,341	-	503,510
surname	-	-	-	403	446	-
E. School Subjects						
Industrial Arts	-	-	252	-	-	-
attitude towards school subjects	-	-	-	-	417	-
F. Gender Value						
values males	109	152	215,217,257	-	449	-
devalues male	72,99,121	-	204,239,249, 311	-	470	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY Females	UPPER ELEMENTARY Males	JUNIOR HIGH Females	JUNIOR HIGH Males	HIGH SCHOOL Females	HIGH SCHOOL Males
values female	-	-	248,268	-	-	-
devalues female	-	-	-	363,365,383, 386,405	-	496,505,513, 514,516
IV. OCCUPATIONAL FACTORS						
A. gender typing of occupations	-	-	298,324	-	420,457	540
female						
actress	-	-	255	-	-	-
artist	-	-	199	-	-	-
childcare worker	-	-	-	-	-	493
counsellor	-	-	-	-	-	493
daycare worker	-	-	243,311	-	-	-
elementary teacher	-	-	-	-	440	-
hairdresser	-	-	-	384	-	-
home economics teacher	-	-	-	-	478	-
homemaker	-	-	-	393	-	-
horserancher	128	-	-	-	-	-
lawyer	-	-	210	-	-	-
librarian	-	-	308	-	-	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
make-up artist	-	-	271	-	-	-
model	-	-	255	-	-	-
nurse	35	197	255	-	424,429,438	485,493
nursery plant worker	-	-	311	-	-	-
secretary	-	-	-	393	-	485
singer	10	-	-	-	-	-
social worker	-	-	309	-	454	-
travel agent	-	-	-	-	436	-
veterinarian	4	-	-	-	-	-
non-physical work	-	-	-	-	-	486
person oriented work	-	-	-	-	-	490,493
male						
accountant	-	-	-	407	-	-
astronaut	55	-	-	-	-	-
carpenter	-	-	-	-	-	485
computer engineer	-	-	-	-	-	517
doctor	54	-	-	-	-	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
engineer	-	-	-	-	-	483,520
farmer	-	-	252,259,308	327,353,384	442,449	485
firefighter	-	159	-	-	-	-
forestry worker	-	-	-	-	-	497
funeral director	-	-	-	-	-	507
game warden	-	-	-	-	-	502
hockey player	-	179,182	-	-	-	-
mechanic	-	-	252,309	-	440,477	485,489,500, 502,509
petroleum worker	-	-	-	-	-	497
physical labourer	-	-	-	-	-	524
truck driver	-	144	264	401	-	-
veterinarian	-	-	-	344	-	-
wrestler	-	181	-	-	-	-
B. **No gender typing of occupations**	-	-	-	-	468,472	531
accountant	-	-	-	-	452	-
architect	-	-	-	398	-	-

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
astronaut	-	-	-	-	424	-
broadcaster/producer	-	-	-	-	466	-
business person	-	-	-	-	435	488
dancer	-	-	302	-	-	-
farmer	-	-	-	385	-	-
kindergarten teacher	-	-	206	-	-	-
lawyer	-	-	-	-	-	485
nurse	-	-	-	-	469	-
office worker	-	-	-	-	-	524
photographer	-	-	-	-	435	-
police officer	-	-	314	-	448	-
C. Other						
unequal opportunities	-	-	203	-	-	-
varied opportunities	-	-	255	411	-	508
increased opportunities	-	-	263,323	-	428	518
limited opportunities	-	-	-	351,404	-	509,522,523, 526,528,529, 530

GENERAL THEME STRUCTURES	UPPER ELEMENTARY		JUNIOR HIGH		HIGH SCHOOL	
	Females	Males	Females	Males	Females	Males
restricted range of options	-	-	-	398	421	525
wider range of options	-	-	-	-	422,436,461	-
unequal access to occupations	-	-	203	-	-	-
more opportunity for advancemer	-	-	-	-	436	-
more prestigious occupations	-	-	-	-	428	-
higher salaries	-	-	-	-	425,428	-
occupational stereotypes	-	-	-	-	426	-
pressure to adhere to gender typing	49	-	-	-	-	-
primary breadwinner	-	-	-	-	441	-
should have equal opportunities	-	-	-	-	473	484
gender equality	-	-	303	-	-	-
pursue post-secondary education	50	-	-	-	-	-
no post-secondary education	-	-	-	-	-	486
employ appearance to secure a job	-	-	-	-	-	537
females making in-roads in traditionally male occupations	-	-	-	-	-	531

APPENDIX X

The Percentage of Attractiveness of Gender-stereotyped Activities by Gender for Each Educational Level

Attractiveness of Gender-stereotyped Activities by Gender for Upper Elementary Students

Activity	Level of significance of the gender difference	Percent of female/male students: Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	.001	90/32	10/50	-/18
Cut grass around a house	NSS*	55/67	38/29	7/4
Paint a fence	NSS*	59/52	13/38	28/10
Design rocket ships	.001	84/19	13/43	3/38
Watch for forest fires	NSS*	74/50	19/40	7/10
Build furniture	.02	79/45	14/50	7/5
Operate on a sick person	NSS*	70/71	23/19	7/10
Repair a toaster	NSS*	87/75	13/15	-/10
Be a school principal	NSS*	40/35	30/20	30/45
Fix a car	.001	90/9	10/29	-/62
Use a computer	NSS*	3/10	24/33	73/57
Work by yourself	NSS*	17/33	43/34	40/33
Tell other workers what to do	NSS*	31/19	34/14	35/67
Look after parks and gardens	NSS*	37/52	40/29	23/19
Drive a tractor	.001	86/35	14/10	-/55
Activities Stereotyped as Female				
Sell things in a store	.04	27/43	40/52	33/5
Deliver messages for business	NSS*	50/62	37/33	13/5
Take tickets at a movie show	NSS*	43/38	36/43	21/19
Read books	.007	14/43	24/38	62/19
Type letters for someone	.005	17/60	55/35	28/5
Play a musical instrument	NSS*	27/36	50/32	23/32
Work with poor people	NSS*	33/60	54/30	13/10
Look after small children	.001	7/57	38/43	55/-
Serve people in a restaurant	.02	14/40	38/45	48/15
Bake a cake	.001	14/68	36/32	50/-

*NSS - Not statistically significant

Attractiveness of Gender-stereotyped Activities
by Gender for Junior High Students

Activity	Level of significance of the gender differences	Percent of female/male students		
		Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	.001	64/15	33/30	3/55
Cut grass around a house	NSS*	46/70	47/30	7/-
Paint a fence	.006	50/89	43/11	7/-
Design rocket ships	.001	83/15	17/55	-/30
Watch for forest fires	.005	70/33	30/48	-/19
Build furniture	NSS*	73/59	27/30	-/11
Operate on a sick person	NSS*	73/59	17/34	10/7
Repair a toaster	.006	93/58	7/38	-/4
Be a school principal	.05	20/48	53/41	27/11
Fix a car	.001	73/15	20/43	7/42
Use a computer	NSS*	13/30	33/30	54/40
Work by yourself	NSS*	20/22	40/45	40/33
Tell other workers what to do	.03	27/11	50/33	23/56
Look after parks and gardens	NSS*	46/52	37/44	17/4
Drive a tractor	NSS*	63/41	30/33	7/26
Activities Stereotyped as Female				
Sell things in a store	.03	13/44	67/45	20/11
Deliver messages for business	.04	33/48	47/52	20/-
Take tickets at a movie show	.001	23/74	54/22	23/4
Read books	.001	20/69	23/15	57/16
Type letters for someone	.001	13/85	50/15	37/-
Play a musical instrument	.003	13/55	50/30	37/15
Work with poor people	.01	47/78	30/22	23/-
Look after small children	.001	10/74	33/26	57/-
Serve people in a restaurant	.001	20/78	53/11	27/11
Bake a cake	.001	33/78	33/19	34/3

NSS - Not statistically significant

Attractiveness of Gender-stereotyped Activities
by Gender for Senior High Students

Activity	Level of significance of the gender difference	Percent of female/male students		
		Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	.001	57/11	39/68	4/21
Cut grass around a house	NSS*	52/64	35/32	13/4
Paint a fence	NSS*	61/61	35/36	4/3
Design rocket ships	.001	91/29	9/41	-/30
Watch for forest fires	NSS*	61/43	39/43	-/14
Build furniture	NSS*	65/36	31/46	4/18
Operate on a sick person	.005	35/79	30/14	35/7
Repair a toaster	.02	74/36	17/46	9/18
Be a school principal	NSS*	57/57	35/39	8/4
Fix a car	.001	63/7	14/39	23/54
Use a computer	NSS*	9/18	64/43	27/39
Work by yourself	NSS*	22/7	56/61	22/32
Tell other workers what to do	NSS*	4/18	65/39	31/43
Look after parks and gardens	NSS*	30/52	44/41	26/7
Drive a tractor	.001	61/11	30/61	9/28
Activities Stereotyped as Female				
Sell things in a store	NSS*	26/39	61/50	13/11
Deliver messages for business	NSS*	43/70	48/22	9/8
Take tickets at a movie show	NSS*	48/57	43/36	9/7
Read books	.001	13/61	39/36	48/3
Type letters for someone	.001	13/93	57/7	30/-
Play a musical instrument	NSS*	17/28	44/43	39/29
Work with poor people	.001	9/64	39/25	52/11
Look after small children	.001	4/75	39/25	57/-
Serve people in a restaurant	.03	48/82	48/18	4/-
Bake a cake	.01	17/43	52/54	31/3

*NSS - Not statistically significant

APPENDIX XI

The Percentage of Attractiveness of Gender-stereotyped Activities by Educational Level for Each Gender

Attractiveness of Gender-stereotyped Activities
by Educational Level for Male Students

Level of Activity	Percent of significance of the educational level difference	Upper Elementary/ Junior High/Senior High Male Students: Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	.006	32/15/11	50/30/68	18/55/21
Cut grass around a house	NSS*	67/70/64	29/30/32	5/-/4
Paint a fence	.04	52/89/61	38/11/36	10/-/3
Design rocket ships	NSS*	19/15/29	43/55/41	38/30/30
Watch for forest fires	NSS*	50/33/43	40/48/43	10/19/14
Build furniture	NSS*	45/59/36	50/30/46	5/11/18
Operate on a sick person	NSS*	71/59/79	19/34/14	10/7/7
Repair a toaster	.05	75/58/36	15/38/46	10/4/18
Be a school principal	.004	35/48/57	20/41/39	45/11/4
Fix a car	NSS*	9/15/7	29/43/39	62/42/54
Use a computer	NSS*	10/30/18	33/30/43	57/40/39
Work by yourself	NSS*	33/22/7	34/45/61	33/33/32
Tell other workers what to do	NSS*	19/11/18	14/33/39	67/56/43
Look after parks and gardens	NSS*	52/52/52	29/44/41	19/4/7
Drive a tractor	.002	35/41/11	10/33/61	55/26/28
Activities Stereotyped as Female				
Sell things in a store	NSS*	43/44/39	52/45/60	5/11/11
Deliver messages for business	NSS*	62/48/70	33/52/22	5/-/8
Take tickets at a movie show	NSS*	38/74/57	43/22/36	19/4/7
Read books	NSS*	43/69/61	38/15/36	19/16/3
Type letters for someone	.04	60/85/93	35/15/7	5/-/-
Play a musical instrument	NSS*	36/55/28	32/30/43	32/15/29
Work with poor people	NSS*	60/78/64	30/22/25	10/-/11
Look after small children	NSS*	57/74/75	43/26/25	-/-/-
Serve people in a restaurant	.009	40/78/82	45/11/18	15/11/-
Bake a cake	.07	68/78/43	32/19/54	-/3/3

*NSS - Not statistically significant

Attractiveness of Gender-stereotyped Activities
By Educational Level for Females

Activity	Level of significance of the educational level difference	Percent of Upper Elementary/ Junior High/Senior High Female Students		
		Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	NSS*	90/64/57	10/33/39	-/3/4
Cut grass around a house	NSS*	55/46/52	38/47/35	7/7/13
Paint a fence	.02	59/50/61	13/43/35	28/7/4
Design rocket ships	NSS*	84/83/91	13/17/9	3/-/-
Watch for forest fires	NSS*	74/70/61	19/30/39	7/-/-
Build furniture	NSS*	79/73/65	14/27/31	7/-/4
Operate on a sick person	.01	70/73/35	23/17/30	7/10/35
Repair a toaster	NSS*	87/93/74	13/7/17	-/-/9
Be a school principal	.04	40/20/57	30/53/35	30/27/8
Fix a car	.03	90/73/63	10/20/14	-/7/23
Use a computer	.01	3/13/9	24/33/64	73/54/27
Work by yourself	NSS*	17/20/22	43/40/56	40/40/22
Tell other workers what to do	NSS*	31/27/4	34/50/65	35/23/31
Look after parks and gardens	NSS*	37/46/30	40/37/44	23/17/26
Drive a tractor	NSS*	86/63/61	14/30/30	-/7/9
Activities Stereotyped as Female				
Sell things in a store	NSS*	27/13/26	40/67/61	33/20/13
Deliver messages for business	NSS*	50/33/43	37/47/48	13/20/9
Take tickets at a movie show	NSS*	43/23/48	36/54/43	21/23/9
Read books	NSS*	14/20/13	24/23/39	62/57/48
Type letters for someone	NSS*	17/13/13	55/50/57	28/37/30
Play a musical instrument	NSS*	27/13/17	50/50/44	23/37/39
Work with poor people	.003	33/47/9	54/30/39	13/23/52
Look after small children	NSS*	7/10/4	38/33/39	55/57/57
Serve people in a restaurant	.004	14/20/48	38/53/48	48/27/4
Bake a cake	NSS*	14/33/17	36/33/52	50/34/31

*NSS - Not statistically significant

APPENDIX XII

The Percentage of Attractiveness of Gender-stereotyped Activities by Gender for the Elementary Students in This Study and in the Labour Canada Study

Attractiveness of Gender-stereotyped Activities by Gender for Upper Elementary Students

Activity	Level of significance of the gender difference	Percent of female/male students: Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	.001	90/32	10/50	-/18
Cut grass around a house	NSS*	55/67	38/29	7/4
Paint a fence	NSS*	59/52	13/38	28/10
Design rocket ships	.001	84/19	13/43	3/38
Watch for forest fires	NSS*	74/50	19/40	7/10
Build furniture	.02	79/45	14/50	7/5
Operate on a sick person	NSS*	70/71	23/19	7/10
Repair a toaster	NSS*	87/75	13/15	-/10
Be a school principal	NSS*	40/35	30/20	30/45
Fix a car	.001	90/9	10/29	-/62
Use a computer	NSS*	3/10	24/33	73/57
Work by yourself	NSS*	17/33	43/34	40/33
Tell other workers what to do	NSS*	31/19	34/14	35/67
Look after parks and gardens	NSS*	37/52	40/29	23/19
Drive a tractor	.001	86/35	14/10	-/55
Activities Stereotyped as Female				
Sell things in a store	.04	27/43	40/52	33/5
Deliver messages for business	NSS*	50/62	37/33	13/5
Take tickets at a movie show	NSS*	43/38	36/43	21/19
Read books	.007	14/43	24/38	62/19
Type letters for someone	.005	17/60	55/35	28/5
Play a musical instrument	NSS*	27/36	50/32	23/32
Work with poor people	NSS*	33/60	54/30	13/10
Look after small children	.001	7/57	38/43	55/-
Serve people in a restaurant	.02	14/40	38/45	48/15
Bake a cake	.001	14/68	36/32	50/-

*NSS - Not statistically significant

Labour Canada Study
Attractiveness of Gender-stereotyped Activities
by Gender for Elementary Students

Activity	Level of significance of the gender difference	Percent of female/male students: Not at all	A little	A lot
Activities Stereotyped as Male				
Pilot a plane	.001	69/30	22/39	9/31
Cut grass around a house	.001	69/54	24/32	7/14
Paint a fence	NSS*	54/54	32/33	14/13
Design rocket ships	.001	74/32	18/24	8/44
Watch for forest fires	.001	70/41	21/34	9/25
Build furniture	.001	56/44	34/38	10/18
Operate on a sick person	.001	44/58	27/25	29/17
Repair a toaster	.001	78/57	17/29	5/14
Be a school principal	.001	30/44	40/29	30/27
Fix a car	.001	75/22	18/33	7/45
Use a computer	.001	13/5	29/25	58/70
Work by yourself	.05	37/30	41/39	22/31
Tell other workers what to do	.001	42/26	37/35	21/39
Look after parks and gardens	NSS*	45/48	38/31	17/21
Activities Stereotyped as Female				
Sell things in a store	.001	16/52	53/34	31/14
Deliver messages for business	NSS*	49/53	40/37	11/10
Take tickets at a movie show	.001	37/61	39/28	24/11
Read books	.001	18/42	37/33	45/25
Type letters for someone	.001	16/57	41/30	43/13
Play a musical instrument	.001	22/38	37/35	41/27
Work with poor people	.001	15/37	44/44	41/19
Look after small children	.001	7/37	24/39	69/24
Serve people in a restaurant	.001	24/54	42/31	34/15
Bake a cake	.001	19/47	39/31	42/22

*NSS - Not statistically significant

APPENDIX XIII

The Percentage of the Expectancy of the Gender Composition of Occupations by Gender for Each Educational Level

Expectancy of the Gender Composition of Occupations by Gender for Upper Elementary Students

Occupation	Level of significance of the gender difference	Percent of female/male students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	38/45	3/5	59/50
Doctor	NSS*	23/45	-/-	77/55
Store Owner	NSS*	3/9	-/-	97/91
Bank Manager	NSS*	17/32	-/4	83/64
School Principal	NSS*	43/55	-/-	57/45
Police Officer	.01	17/52	7/-	76/48
Forest Ranger	NSS*	63/86	3/5	34/9
Dentist	NSS*	38/32	-/-	62/68
Teacher (high school)	NSS*	14/27	-/9	86/64
Minister/Priest	NSS*	87/82	-/4	13/14
Farmer	NSS*	67/91	3/-	30/9
Moderate Occupations				
Sales Person	NSS*	17/18	3/9	80/73
Grocery Clerk	NSS*	-/14	33/24	67/62
Traditionally Female Occupations				
Secretary	NSS*	-/4	79/82	21/14
Nurse	NSS*	4/-	82/95	14/5
Teacher (elementary)	NSS*	3/-	14/23	83/77
Librarian	NSS*	7/-	50/73	43/27
Dancer	.005	-/9	17/50	83/41
Model	NSS*	-/4	53/64	47/32
Social Worker	NSS*	7/14	17/27	76/59
Guidance Counsellor	NSS*	-/-	48/55	52/45

*NSS - Not statistically significant

Expectancy of the Gender Composition of Occupations by Gender for Junior High Students

Occupation	Level of significance of the gender difference	Percent of female/male students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	37/52	3/-	60/48
Doctor	.04	20/44	-/-	80/56
Store Owner	NSS*	13/26	7/7	80/67
Bank Manager	NSS*	13/33	-/4	87/63
School Principal	NSS*	43/48	3/4	54/48
Police Officer	NSS*	33/46	3/8	64/46
Forest Ranger	NSS*	70/73	-/4	30/23
Dentist	NSS*	33/41	3/4	64/55
Teacher (high school)	NSS*	10/26	3/7	87/67
Minister/Priest	NSS*	84/81	3/-	13/19
Farmer	NSS*	70/74	-/-	30/26
Moderate Occupations				
Sales Person	NSS*	7/19	10/7	83/74
Grocery Clerk	NSS*	-/4	17/37	83/59
Traditionally Female Occupations				
Secretary	NSS*	-/-	83/78	17/22
Nurse	NSS*	-/8	73/65	27/27
Teacher (elementary)	NSS*	-/7	27/37	73/56
Librarian	NSS*	-/8	63/68	37/24
Dancer	NSS*	-/4	37/44	63/52
Model	NSS*	-/4	53/41	47/55
Social Worker	NSS*	3/15	37/35	60/50
Guidance Counsellor	NSS*	-/-	53/52	47/48

*NSS - Not statistically significant

Expectancy of the Gender Composition of Occupations by Gender for Senior High Students

Occupation	Level of significance of the gender difference	Percent of female/male students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	48/57	-/-	52/43
Doctor	NSS*	13/29	-/3	87/68
Store Owner	.03	4/26	-/-	96/74
Bank Manager	.003	9/50	-/4	91/46
School Principal	.002	17/59	-/-	83/41
Police Officer	NSS*	39/44	-/-	61/56
Forest Ranger	NSS*	61/75	-/-	39/25
Dentist	NSS*	26/37	-/4	74/[illegible]
Teacher (high school)	.03	-/18	-/7	100/75
Minister/Priest	NSS*	91/81	-/-	9/19
Farmer	NSS*	48/71	4/-	48/29
Moderate Occupations				
Sales Person	NSS*	9/18	4/3	87/79
Grocery Clerk	.04	-/-	17/44	83/56
Traditionally Female Occupations				
Secretary	NSS*	4/-	74/85	22/15
Nurse	NSS*	-/-	57/79	43/21
Teacher (elementary)	NSS*	-/4	39/50	61/46
Librarian	NSS*	-/-	87/70	13/30
Dancer	NSS*	-/-	35/57	65/63
Model	NSS*	-/-	57/44	43/56
Social Worker	NSS*	-/4	30/57	70/39
Guidance Counsellor	NSS*	-/-	48/44	52/56

*NSS - Not statistically significant

APPENDIX XIV

The Percentage of the Expectancy of the Gender Composition of Occupations by Educational Level for Each Gender

Expectancy of the Gender Composition of Occupations by Educational Level for Males

Occupation	Level of significance of the educational level difference	Percent of Upper Elementary/ Junior High/Senior High Male Students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	45/52/57	5/-/-	50/48/43
Doctor	NSS*	45/44/29	-/-/3	55/56/68
Store Owner	NSS*	9/26/26	-/7/-	91/67/74
Bank Manager	NSS*	32/33/50	4/4/4	64/63/46
School Principal	NSS*	55/48/59	-/4/-	45/48/41
Police Officer	NSS*	52/46/44	-/8/-	48/46/56
Forest Ranger	NSS*	86/73/75	5/4/-	9/23/25
Dentist	NSS*	32/41/37	-/4/4	68/55/59
Teacher (high school)	NSS*	27/26/18	9/7/7	64/67/75
Minister/Priest	NSS*	82/81/81	4/-/-	14/19/19
Farmer	NSS*	91/74/71	-/-/-	9/26/29
Moderate Occupations				
Sales Person	NSS*	18/19/18	9/7/3	73/74/79
Grocery Clerk	NSS*	14/4/-	24/37/44	62/59/56
Traditionally Female Occupations				
Secretary	NSS*	4/-/-	82/78/85	4/22/15
Nurse	NSS*	-/8/-	95/65/79	5/27/21
Teacher (elementary)	NSS*	-/7/4	23/37/50	77/56/46
Librarian	NSS*	-/8/-	73/68/70	27/24/30
Dancer	NSS*	9/4/-	50/44/37	41/52/63
Model	NSS*	4/4/-	64/41/44	32/55/56
Social Worker	NSS*	14/15/4	27/35/57	59/50/39
Guidance Counsellor	NSS*	-/-/-	55/52/44	45/48/56

*NSS - Not statistically significant

Expectancy of the Gender Composition of Occupations by Educational Level for Females

Occupation	Level of significance of the educational level difference	Percent of Upper Elementary/ Junior High/Senior High Female Students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	38/37/48	3/3/-	59/60/52
Doctor	NSS*	23/20/13	-/-/-	77/80/87
Store Owner	NSS*	3/13/4	-/7/-	97/80/96
Bank Manager	NSS*	17/13/9	-/-/-	83/87/91
School Principal	NSS*	43/43/17	-/3/-	57/54/83
Police Officer	NSS*	17/33/39	7/3/-	76/64/61,
Forest Ranger	NSS*	63/70/61	3/-/-	34/30/39
Dentist	NSS*	38/33/26	-/3/-	62/64/74
Teacher (high school)	NSS*	14/10/-	-/3/-	86/87/100
Minister/Priest	NSS*	87/84/91	-/3/-	13/13/9
Farmer	NSS*	67/70/48	3/-/4	30/30/48
Moderate Occupations				
Sales Person	NSS*	17/7/9	3/10/4	80/83/87
Grocery Clerk	NSS*	-/-/-	33/17/17	67/83/83
Traditionally Female Occupations				
Secretary	NSS*	-/-/4	79/83/74	21/17/22
Nurse	NSS*	4/-/-	82/73/57	14/27/43
Teacher (elementary)	NSS*	3/-/-	14/27/39	83/73/61
Librarian	.03	7/-/-	50/63/87	43/37/13
Dancer	NSS*	-/-/-	17/37/35	83/63/65
Model	NSS*	-/-/-	53/53/57	47/47/43
Social Worker	NSS*	7/3/-	17/37/30	76/60/70
Guidance Counsellor	NSS*	-/-/-	48/53/48	52/47/52

*NSS - Not statistically significant

APPENDIX XV

The Percentage of the Expectancy of the Gender Composition of Occupations by Gender for Elementary Students in This Study and in the Labour Canada Study

Expectancy of the Gender Composition of Occupations by Gender for Upper Elementary Students

Occupation	Level of significance of the gender difference	Percent of female/male students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	38/45	3/5	59/50
Doctor	NSS*	23/45	-/-	77/55
Store Owner	NSS*	3/9	-/-	97/91
Bank Manager	NSS*	17/32	-/4	83/64
School Principal	NSS*	43/55	-/-	57/45
Police Officer	.01	17/52	7/-	76/48
Forest Ranger	NSS*	63/86	3/5	34/9
Dentist	NSS*	38/32	-/-	62/68
Teacher (high school)	NSS*	14/27	-/9	86/64
Minister/Priest	NSS*	87/82	-/4	13/14
Farmer	NSS*	67/91	3/-	30/9
Moderate Occupations				
Sales Person	NSS*	17/18	3/9	80/73
Grocery Clerk	NSS*	-/14	33/24	67/62
Traditionally Female Occupations				
Secretary	NSS*	-/4	79/82	21/14
Nurse	NSS*	4/-	82/95	14/5
Teacher (elementary)	NSS*	3/-	14/23	83/77
Librarian	NSS*	7/-	50/73	43/27
Dancer	.005	-/9	17/50	83/41
Model	NSS*	-/4	53/64	47/32
Social Worker	NSS*	7/14	17/27	76/59
Guidance Counsellor	NSS*	-/-	48/55	52/45

*NSS - Not statistically significant

Labour Canada Study
Expectancy of the Gender Composition of Occupations
by Gender for Elementary Students

Occupations	Level of significance of the gender difference	Percent of female/male students		
		Males only	Females only	Both
Traditionally Male Occupations				
Astronaut	NSS*	46/49	2/1	52/50
Doctor	.001	6/18	5/6	89/76
Store Owner	.001	6/17	7/8	87/75
Bank Manager	.05	24/34	3/4	73/62
School Principal	.01	21/33	3/4	76/63
Police Officer	.05	29/39	2/2	69/59
Forest Ranger	NSS*	65/70	3/3	32/27
Dentist	.01	19/29	5/5	76/66
Teacher (high school)	.001	6/15	9/10	85/75
Minister/Priest	NSS*	65/58	3/4	32/38
Moderate Occupations				
Sales Person	NSS*	13/17	9/8	78/75
Grocery Clerk	.01	11/14	16/25	73/61
Traditionally Female Occupations				
Secretary	.05	1/4	72/64	27/32
Nurse	NSS*	1/3	60/59	39/38
Teacher (elementary)	NSS*	2/4	21/25	77/71
Librarian	NSS*	1/3	47/42	52/55
Dancer	NSS*	1/3	35/34	64/63
Model	NSS*	5/6	46/48	49/46
Social Worker	.05	8/15	16/14	76/71

*NSS - Not statistically significant